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Method of Perturbed Stationary States (T)—A. V. Matveenko and L. N. Ponomarev. 16(3), 347-8 (Mar. 1973); CPM-7306D0443
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Phenomenological Study of Inclusive Single-Particle Spectra in the Triple Regge Limit (T)—G. Ranft and J. Ranft. 15(3), 314–6 (Sep. 1972); CPM-7211A1943

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- $\bar{N}N \rightarrow 3\pi$ Annihilation in Dual Models (T)—A. I. Bugrii, L. L. Enkovskii and N. A. Kobylinskii. 15(6), 699-701 (Dec. 1972); CPM-7302E0225
- Analysis of a Dual Fermion Model (T)—S. N. Manida and V. A. Franke. 16(4), 429-32 (Apr. 1973); CPM-7309D1145
- Application of the Methods of Statistical Mechanics to Dual Resonance Models (T)—G. P. Demchenko, V. V. Kukhtin and B. V. Struminskii. 16(5), 511-3 (May 1973); CPM-7309D1227

2.10.45. Models of Weak Interactions

2.10.45.15. Neutral Current

- Erratum: Neutral Currents and the Limit of Validity of the Theory of Weak Interactions [6, 603 (4)] (T)—B. L. Ioffe and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- The Role of Corrections to the Weak Interaction in the $K \rightarrow l^+ l^-$ and $K \rightarrow \pi l^+ l^-$ Decays (T)—E. P. Shabalin. 16(2), 204-8 (Feb. 1973); CPM-7304E0307
- Tensor Constant of Weak Interaction Current of the Second Kind (T)—V. I. Lisin and G. A. Lobov. 16(3), 353-4(L) (Mar. 1973); CPM-7306D0449

2.10.45.90. Other Topics in Models of Weak Interactions

- Shrinkage Singularities and Asymptotic Behavior of the Weak Interaction Cross Section (T)—A. D. Dolgov, V. I. Zakharov and L. B. Okun'. 15(4), 451-6 (Oct. 1972); CPM-7212D1996
- Possible Effect of Diagonalization of High-Energy Electromagnetic Interactions with Respect to Particle Helicities (T)—E. M. Lipmanov and N. V. Mikheev. 16(6), 682-5 (Jun. 1973); CPM-7310E1530

2.20. ELEMENTARY-PARTICLE PROCESSES

2.20.05. Weak and Electromagnetic Interactions of Leptons

- Pair Production at Large Angles in Colliding-Beam Experiments (T)—V. N. Baier and V. S. Fadin. 15(1), 56-8 (Jul. 1972); CPM-7209C1008
- Erratum: "Direct Production of Lepton Pairs by a Neutrino Beam in the Electromagnetic Field of a Nucleus [3, 497 (4)] (T)—M. S. Marinov, Yu. P. Nikitin, Yu. P. Orevkov and E. P. Shabalin. 15 (1), 118 (Jul. 1972); CPM-7209C1070
- On the Decay Mode $\mu^+ \rightarrow e^+ \nu_e \bar{\nu}_\mu e^+ e^-$ (T)—D. Yu. Bardin, Ts. G. Istatkov and G. B. Mitsel'makher. 15(2), 161-2 (Aug. 1972); CPM-7210C1422
- General Form of Cross Sections and Polarization Effects for Electromagnetic and Weak Processes (T)—A. P. Rekalov. 15(3), 300-3 (Sep. 1972); CPM-7211A1929
- Muon Pair Production in $\mu\mu$ Collisions (E)—M. N. Kobrinskii and F. F. Tikhonin. 15(6), 685-6 (Dec. 1972); CPM-7302E0211
- Induced Emission of Electrons in Plane Electromagnetic Waves (T)—I. M. Ternov and V. R. Khalilov. 16(1), 94-8 (Jan. 1973); CPM-7304E0198
- Neutrino Electromagnetic and Weak Interactions and the Process $l^+ l^+ \rightarrow \nu + \bar{\nu} + \gamma$ (T)—A. P. Rekalov. 16(3), 309-10 (Mar. 1973); CPM-7306D0405
- Production of C-Even Resonances in Colliding ee Beams. Allowance for the Geometry of the Experiment in Two-Particle Decays (T)—A. K. Slivkov and Sh. M. Shvartsman. 16(4), 445-8 (Apr. 1973); CPM-7309D1161
- Production of Electron and Muon Pairs in Colliding e^-e^- and e^-e^+ Pairs (T)—E. A. Kuraev and L. N. Lipatov. 16(5), 584-91 (May 1973); CPM-7309D1300
- Polarization Effects in Weak Interactions of Colliding e^+e^- and e^-e^- Beams at High Energies (T)—G. V. Grigoryan and V. A. Khoze. 16(5), 592-6 (May 1973); CPM-7309D1308

2.20.10. Leptonic Decays of Mesons

2.20.10.15. π Decays

- Measurement of the Mean Life of the π^+ Meson by an Oscillographic Method (E)—A. F. Dunaitsev, Yu. D. Prokoshkin, E. A. Razuvaev, V. A. Sergeev and Yu. N. Simonov. 16(3), 292-7 (Mar. 1973); CPM-7306D0388
- The Sign of the $\pi^0 \rightarrow 2\gamma$ Electromagnetic Decay Constant (T)—M. V. Terent'ev. 16(5), 576-9 (May 1973); CPM-7309D1292

2.20.10.20. K Decays

- K_{13} Decays and Chiral Symmetry Breaking (T)—B. A. Magradze, M. N. Tsuguleva and M. A. Eliashvili. 15(3), 294-5 (Sep. 1972); CPM-7211A1923
- Possible CPT-Breaking Effects and the Decay $K_L \rightarrow 2\mu$ (T)—E. B. Bogomol'ny, A. D. Dolgov, V. I. Zakharov, L. B. Okun' and M. V. Terent'ev. 15(5), 549-53 (Nov. 1972); CPM-7302E0075
- Electromagnetic Interaction of the Muon and the $K_L \rightarrow 2\mu$ Decay (T)—G. V. Grigoryan, N. N. Nikolaev and L. B. Okun'. 15(5), 554-5 (Nov. 1972); CPM-7302E0080
- Atomic Decays of K_L^0 Mesons (T)—L. L. Nemenov. 16(1), 67-9 (Jan. 1973); CPM-7304E0171
- The $K_L^0 \rightarrow \mu^+ \mu^-$ Decay and a Possible Anomalous Muon-Hadron Interaction (T)—E. B. Bogomol'nyi, A. D. Dolgov, V. I. Zakharov, L. B. Okun', M. A. Shifman and M. Zh. Shmatikov. 16(1), 70-6 (Jan. 1973); CPM-7304E0174
- The $K_L^0 \rightarrow \mu\bar{\mu}$ Decay and the Anomalous $2\pi\gamma \rightarrow 2\mu$ Interaction (T)—M. A. Shifman and N. Zh. Shmatikov. 16(1), 77-9 (Jan. 1973); CPM-7304E0181
- Contribution of the $\pi^+ \pi^- \gamma$ Intermediate State to the Absorptive Part of the $K_L^0 \rightarrow \mu\bar{\mu}$ Decay Amplitude (T)—A. D. Dolgov, M. A. Shifman and M. Zh. Shmatikov. 16(1), 80-1 (Jan. 1973); CPM-7304E0184
- The Role of Corrections to the Weak Interaction in the $K \rightarrow l^+ l^-$ and $K \rightarrow \pi l^+ l^-$ Decays (T)—E. P. Shabalin. 16(2), 204-8 (Feb. 1973); CPM-7304E0307
- $K_L \rightarrow 2\mu$ Decay and the Possible Existence of a Light Vector Meson (T)—A. D. Dolgov, A. G. Dolgolenko, V. I. Zakharov and L. B. Okun'. 16(2), 209-13 (Feb. 1973); CPM-7304E0312
- Quantum Theory Without the Superposition Principle (T)—I. S. Shapiro. 16(6), 727-32 (Jun. 1973); CPM-7310E1575

2.20.15. Hadronic Decays of Mesons

- Study of the Reaction $\pi^+ + p \rightarrow n + m\gamma$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163-5 (Aug. 1972); CPM-7210C1424
- The Reaction $\pi p \rightarrow \pi^+ \pi^+ n$ at $p_\pi = 4.45$ BeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, M. M. Sulkovskaya and A. F. Sustavov. 15(2), 166-8 (Aug. 1972); CPM-7210C1427
- Measurement of the Branching Ratio $\Gamma(K_L \rightarrow 3\pi^0)/\Gamma(K_L \rightarrow \pi^+ \pi^- \pi^0)$ (E)—V. V. Barmin, V. G. Barylov, G. D. Davidenko, V. S. Demidov, A. G. Dolgolenko, N. K. Zombkovskaya, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova and V. A. Shebanov. 15(6), 638 (Dec. 1972); CPM-7302E0164

2.20.20. Decays of Baryons

- Single Hyperon Production and Weak Decays of the $3/2^+$ Decuplet.—N. N. Nikolaev. 15(5), 547-8 (Nov. 1972); CPM-7302E0073

2.20.25. Electromagnetic Processes and Properties of Hadrons

2.20.25.15. Electromagnetic Mass Differences

- Calculation of the Electromagnetic Mass Difference of Pions in Chiral Dynamics (T)—A. N. Ivanov. 15(1), 64-70 (Jul. 1972); CPM-7209C1016
- Current Algebra and the Problem of Cancellation of the Divergences in the Isotopic $\Delta T = 2$ Mass Differences (T)—A. B. Kaganovich. 15(5), 561-4 (Nov. 1972); CPM-7302E0087

The Reaction $\gamma + \gamma \rightarrow \pi + \pi$ and the Pion Electromagnetic Mass Difference (T)—P. S. Isaev and V. I. Khleskov. **16(5)**, 559–64 (May 1973); CPM-7309D1275

2.20.25.20. Electromagnetic Form Factors, Electric and Magnetic Moments

Electroproduction of Pions from Protons at Threshold for Momentum Transfers up to 10.4 F^2 (E/T)—Yu. I. Titov, N. F. Severin, N. G. Afanas'ev, R. V. Akhmerov, S. A. Byvalin, E. V. Stepula and E. M. Smelov. **15(3)**, 273–5 (Sep. 1972); CPM-7211A1902

The Decays $\eta \rightarrow \pi\pi\gamma$, $\eta \rightarrow 2\gamma$ and $\eta \rightarrow \pi\pi\gamma\gamma$ and the Form Factor of the Vector Current in K_{14} Decay (T)—V. V. Solov'ev and M. V. Terent'ev. **16(1)**, 82–6 (Jan. 1973); CPM-7304E0186

Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi\pi \rightarrow e^+e^-n$ at $E_{\pi\pi} = 275 \text{ MeV}$ (E)—S. F. Bereznev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, A. V. Kuptsov, G. G. Mkrtchyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. **16(1)**, 99–102 (Jan. 1973); CPM-7304E0203

Electromagnetic Corrections to the Weak Hadron Form Factor (T)—L. L. Frankfurt. **16(6)**, 695–9 (Jun. 1973); CPM-7310E1543

2.20.25.30. Electromagnetic Decays

Study of the Reaction $\pi^+ + p \rightarrow n + m\gamma$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. **15(2)**, 163–5 (Aug. 1972); CPM-7210C1424

Atomic Decays of Elementary Particles (T)—L. L. Nemenov. **15(5)**, 582–4 (Nov. 1972); CPM-7302E0108

Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Mirosidli, T. A. Chistyakova, I. V. Chuvilo and V. A. Shebanov. **15(6)**, 636–7 (Dec. 1972); CPM-7302E0162

The Decays $\eta \rightarrow \pi\pi\gamma$, $\eta \rightarrow 2\gamma$ and $\eta \rightarrow \pi\pi\gamma\gamma$ and the Form Factor of the Vector Current in K_{14} Decay (T)—V. V. Solov'ev and M. V. Terent'ev. **16(1)**, 82–6 (Jan. 1973); CPM-7304E0186

Pion Polarizability, Virtual Compton Effect, and the Decay $\pi \rightarrow e\nu\gamma$ (T)—M. V. Terent'ev. **16(1)**, 87–93 (Jan. 1973); CPM-7304E0191

$K_{L1} \rightarrow 2\mu$ Decay and the Possible Existence of a Light Vector Meson (T)—A. D. Dolgov, A. G. Dolgolenko, V. I. Zakharov and L. B. Okun'. **16(2)**, 209–13 (Feb. 1973); CPM-7304E0312

The Radiative Decays $\pi(K) \rightarrow l\nu\gamma$ (T)—D. Yu. Bardin and S. M. Bilen'kii. **16(3)**, 311–5 (Mar. 1973); CPM-7306D0407

2.20.25.40. Electromagnetic Corrections to Strong- and Weak-Interaction Processes

Radiation Corrections to the $e p$ Scattering Cross Section at Small Angles with Detection of the Recoil Proton (T)—A. P. Vanzha, S. R. Gevorkyan and A. V. Tarasov. **16(2)**, 199–200 (Feb. 1973); CPM-7304E0302

Production of C-Even Resonances in Colliding ee Beams. Allowance for the Geometry of the Experiment in Two-Particle Decays (T)—A. K. Slivkov and Sh. M. Shvartsman. **16(4)**, 445–8 (Apr. 1973); CPM-7309D1161

Electromagnetic Effects in Expolarization in Meson-Nucleon Scattering (T)—A. P. Vanzha, L. I. Lapidus and A. V. Tarasov. **16(5)**, 565–70 (May 1973); CPM-7309D1281

2.20.30. Compton Scattering and Lepton Scattering by Hadrons

Erratum: Angular and Momentum Distributions of μ^- Mesons in the Reaction $\nu + Z \rightarrow \mu^- + W^+ + Z$ [14, 235 (2)] (T)—E. D. Zhizhin, Yu. P. Nikitin, G. V. Rozhnov and E. P. Shabalin. **15(1)**, 118 (Jul. 1972); CPM-7209C1070

Erratum: Angular and Momentum Distributions of μ^+ Mesons Resulting from the Decay of the W^+ Boson in the Reaction $\nu + Z \rightarrow \mu^+ + Z + W^+$ [14, 236 (2)] (T)—A. V. Berkov, E. D. Zhizhin, Yu. P. Nikitin and E. P. Shabalin. **15(1)**, 118 (Jul. 1972); CPM-7209C1070

Deep Inelastic $e p$ Scattering in Perturbation Theory (T)—V. N. Gribov and L. N. Lipatov. **15(4)**, 438–50 (Oct. 1972); CPM-7212D1983

Fixed Pole in the Virtual Compton-Effect Amplitude (T)—Yu. A. Rakov and V. A. Tsarev. **15(5)**, 574–5 (Nov. 1972); CPM-7302E0100

The $K_{L1} \rightarrow \mu^+ \mu^-$ Decay and a Possible Anomalous Muon-Hadron Interaction (T)—E. B. Bogomol'nyi, A. D. Dolgov, V. I. Zakharov, L. B. Okun', M. A. Shifman and M. Zh. Shmatikov. **16(1)**, 70–6 (Jan. 1973); CPM-7304E0174

The $K_{L1} \rightarrow \mu\mu$ Decay and the Anomalous $2\pi\gamma \rightarrow 2\mu$ Interaction (T)—M. A. Shifman and N. Zh. Shmatikov. **16(1)**, 77–9 (Jan. 1973); CPM-7304E0181

Radiation Corrections to the $e p$ Scattering Cross Section at Small Angles with Detection of the Recoil Proton (T)—A. P. Vanzha, S. R. Gevorkyan and A. V. Tarasov. **16(2)**, 199–200 (Feb. 1973); CPM-7304E0302

Muon Production in the Process $\nu_\mu + N \rightarrow \mu^- + W^+ + N'$, Taking into Account the Neutrino Energy Spectrum (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. **16(3)**, 304–8 (Mar. 1973); CPM-7306D0400

Derivation of the Adler and Cabibbo-Radicati Sum Rules and Calculation of the Asymptotics of the Difference between the Cross Sections for the Scattering of Neutrinos and Anti-Neutrinos on Polarized Hadrons (T)—L. L. Frankfurt. **16(6)**, 690–4 (Jun. 1973); CPM-7310E1538

2.20.35. Hadron Photo- and Lepto-Production

2.20.35.20. Meson Production

Electroproduction of Pions from Protons at Threshold for Momentum Transfers up to 10.4 F^2 (E/T)—Yu. I. Titov, N. F. Severin, N. G. Afanas'ev, R. V. Akhmerov, S. A. Byvalin, E. V. Stepula and E. M. Smelov. **15(3)**, 273–5 (Sep. 1972); CPM-7211A1902

Recoil-Nucleon Polarization in Pion Photoproduction and Electroproduction (T)—A. S. Omelaenko. **15(3)**, 304–6 (Sep. 1972); CPM-7211A1933

Photoproduction of π^0 Mesons from Nucleons in the Complex Regge Pole Model (T)—N. P. Zotov, Yu. A. Rakov and V. A. Tsarev. **15(3)**, 307–8 (Sep. 1972); CPM-7211A1936

Dispersion Relations and Data on the Reaction $\gamma n \rightarrow p\pi^-$ in the 33 Resonance Region (T)—I. G. Aznauryan and A. N. Zaslavskii. **15(6)**, 696–8 (Dec. 1972); CPM-7302E0222

The $K_{L1} \rightarrow \mu^+ \mu^-$ Decay and a Possible Anomalous Muon-Hadron Interaction (T)—E. B. Bogomol'nyi, A. D. Dolgov, V. I. Zakharov, L. B. Okun', M. A. Shifman and M. Zh. Shmatikov. **16(1)**, 70–6 (Jan. 1973); CPM-7304E0174

Electroproduction of Strange Particles on Nucleons Near the Threshold (E)—I. V. Krive. **16(5)**, 556–8 (May 1973); CPM-7309D1272

The Reaction $\gamma + \gamma \rightarrow \pi + \pi$ and the Pion Electromagnetic Mass Difference (T)—P. S. Isaev and V. I. Khleskov. **16(5)**, 559–64 (May 1973); CPM-7309D1275

Nonlinear Lagrangian of Two-Photon Production of Soft Pions (T)—Yu. P. Malakyan. **16(5)**, 571–5 (May 1973); CPM-7309D1287

2.20.35.30. Meson Resonance Production

Noncoherent Photoproduction of Vector Mesons on Nuclei at Large Momentum Transfers (T)—S. R. Gevorkyan and A. V. Tarasov. **15(2)**, 141–2 (Aug. 1972); CPM-7210C1402

2.20.35.60. Baryon Resonance Production

($\pi\Delta$) Photoproduction on Protons at γ -Quantum Energies 0.6–1 GeV (E)—A. A. Zayats. **16(5)**, 597–601 (May 1973); CPM-7309D1313

2.20.35.90. Other Topics in Hadron Photo- and Lepto-Production

Electromagnetic Production of W -Meson Pairs (T)—N. L. Ter-Isaakyan and V. A. Khoze. **15(1)**, 51–5 (Jul. 1972); CPM-7209C1003

Multifermion Interactions (T)—S. S. Gershtein and V. N. Folomeshkin. **15(3)**, 296–9 (Sep. 1972); CPM-7211A1925

Parton Model for $\gamma\gamma$ Scattering (T)—L. I. Perlovskii and E. P. Kheifets. **15(4)**, 435–7 (Oct. 1972); CPM-7212D1980

Violation of Scale Invariance in Hadron Electroproduction Owing to the Cut Contribution (T)—Yu. M. Shabel'skii. **16(1)**, 103–5 (Jan. 1973); CPM-7304E0207

- Certain Implications of Microcausality for the Matrix Element $\langle p[A(x)B(0)]p \rangle$ of the Commutator (T)—V. B. Geshkenbein. 16 (3), 340-2 (Mar. 1973); CPM-7306D0436
- Observation of Double e^+e^- Pair Production (E)—V. E. Balakin, A. D. Bukin, L. M. Kurdadze, A. P. Onuchin, E. V. Pakhtusova, S. I. Serebnyakov, V. A. Sidorov and A. G. Khabakhpashev. 16(4), 407-9 (Apr. 1973); CPM-7309D1123
- The Process $\nu_\mu + N \rightarrow \mu^- + W^+ + N'$ and the Possibility of Detecting the W Boson from the Kinematic Characteristics of the Lepton from the Decay $W^+ \rightarrow l^+ + \nu_l$ (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(6), 686-9 (Jun. 1973); CPM-7310E1534
- ## 2.20.40. Nucleon-Nucleon Interactions, Including Antinucleon, Deuteron, etc.
- ### 2.20.40.15. Low-Energy N-N Interactions
- Determination of the Spin-Parity of the $X^0(960)$ Meson in Proton-Antiproton Annihilation at Rest (E)—L. É. Genina, A. N. Zaslavskii and R. Lednicky. 15(5), 571-3 (Nov. 1972); CPM-7302E0097
- Energy Dependence of Elastic Backward Scattering of Protons by Deuterons in the 360-670 MeV Range (E)—V. I. Komarov, G. E. Kosarev, G. P. Reshetnikov and O. V. Savchenko. 16(2), 129-33 (Feb. 1973); CPM-7304E0232
- Sum Rules for Potential Scattering (T)—D. A. Kirzhnits and N. Zh. Takibaev. 16(2), 242-3(L) (Feb. 1973); CPM-7304E0345
- ### 2.20.40.20. High-Energy N-N Interactions
- Analysis of the Angular and Energy Characteristics of Secondary Particles Produced in Proton-Proton Interactions at 10 BeV/c (E)—Zh. S. Takibaev, M. G. Antonova, É. G. Boos, D. I. Ermilova, L. A. San'ko, T. Temiraliyev and A. V. Kholmetskaya. 15(1), 38-43 (Jul. 1972); CPM-7209C0990
- Solution of Unitarity Condition with Modified Overlap Function (T)—G. G. Arushanov. 15(1), 74-8 (Jul. 1972); CPM-7209C1026
- Calculations of Shadow Effects in Proton-Deuteron Collisions (T)—V. V. Anisovich, P. E. Volkovitskii and L. G. Dakhno. 15(1), 97-9 (Jul. 1972); CPM-7209C1049
- Spin Effects in Production of Quasinuclear Mesons by Antiprotons (T)—O. D. Dal'karov, V. B. Mandel'tseig and V. A. Khangulyan. 15(1), 100-2 (Jul. 1972); CPM-7209C1052
- Model of Reggeized One-Pion Exchange and the $pp \rightarrow pn\pi^+$ Reaction (T)—K. G. Borekov, A. B. Kaidalov, V. I. Lisin, E. S. Nikolaevskii and L. A. Ponomarev. 15(2), 203-8 (Aug. 1972); CPM-7210C1464
- Empirical Formula for Pion and Kaon Spectra in pp Interactions (T)—V. N. Folomeskhin. 15(2), 214-8 (Aug. 1972); CPM-7210C1475
- Analysis of the $np \rightarrow pp\pi^-$ Reaction from the Point of View of a Reggeized OPE Model (E)—K. G. Borekov, A. P. Gasparyan, A. B. Kaidalov, A. V. Nikitin, Yu. A. Troyan and L. A. Ponomarev. 15(3), 309-13 (Sep. 1972); CPM-7211A1938
- Phenomenological Study of Inclusive Single-Particle Spectra in the Triple Regge Limit (T)—G. Ranft and J. Ranft. 15(3), 314-6 (Sep. 1972); CPM-7211A1943
- The Real Part of the Amplitude for Elastic pd -Scattering at an Energy of 70 GeV (E)—V. I. Zayachki, L. G. Khristov, Z. M. Zlatanov and P. A. Devenski. 15(5), 528-9 (Nov. 1972); CPM-7302E0054
- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyung Bien and M. G. Shafranov. 16(1), 50-6 (Jan. 1973); CPM-7304E0154
- Charged Particle Distribution in Inelastic Proton-Neutron Interactions at 19.2 GeV/c (E)—É. G. Boos, B. O. Zhaitykov, E. S. Lukin, A. M. Mosienko and R. A. Tursunov. 16(2), 187-8 (Feb. 1973); CPM-7304E0290
- $pN \rightarrow N\bar{N}KK$ Reactions in Models with Single-Kaon Exchange (T)—V. B. Kopeliovich. 16(3), 323-5 (Mar. 1973); CPM-7306D0419
- Slope Parameter of Differential Elastic pp Scattering Cross Section (T)—Kh. M. Chernev. 16(4), 421-2 (Apr. 1973); CPM-7309D1137
- Study of Four Proton pp Interaction at a Momentum 19.1 GeV/c (E)—Zh. S. Takibaev, É. G. Boos, L. A. San'ko, T. I. Mukhordova, A. M. Mosienko, K. G. Zaitsev and K. V. Sharapov. 16(5), 537-41 (May 1973); CPM-7309D1253
- The Vavilov-Cerenkov Effect in the X-Ray Wavelength Region (T)—A. V. Kolpakov. 16(5), 554-5 (May 1973); CPM-7309D1270
- Rescattering Effects in the $pd \rightarrow ppn$ Reaction (T)—B. M. Golovin, G. I. Lykasov, A. M. Rozanova and A. V. Tarasov. 16(5), 602-4 (May 1973); CPM-7309D1318
- ### 2.20.40.90. Other N-N Interactions
- Partial Wave Analysis of NN and NM Scattering Amplitudes at High Energies (T)—G. I. Kuznetsov. 15(5), 576-81 (Nov. 1972); CPM-7302E0102
- Determination of the Neutron-Neutron Scattering Length from the Reaction $\pi d \rightarrow 2n + \gamma$ (T)—G. M. Shklyarevskii. 16(6), 700-4 (Jun. 1973); CPM-7310E1548
- ## 2.20.50. Pion-Baryon Interactions
- ### 2.20.50.15. Low-Energy π -N Interactions
- Radiative Pion Capture by Hydrogen and Sign of Neutral Pion Decay Amplitude (E)—L. I. Lapidus and M. M. Musakhanov. 15(5), 558-60 (Nov. 1972); CPM-7302E0084
- Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi p \rightarrow e^+e^-n$ at $E_{\pi n} = 275$ MeV (E)—S. F. Berezhnev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, A. V. Kuptsov, G. G. Mkrtchyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. 16(1), 99-102 (Jan. 1973); CPM-7304E0203
- ### 2.20.50.20. High-Energy Elastic π -N Interactions
- t-Channel Contribution to Pion-Nucleon Backward Scattering (T)—A. I. Lendel and V. I. Lend'el. 15(1), 79-82 (Jul. 1972); CPM-7209C1031
- Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650-3 (Dec. 1972); CPM-7302E0176
- ### 2.20.50.30. High-Energy Inelastic π -N Interactions
- Investigation of the Reaction $\pi p \rightarrow \rho p$ and $\pi p \rightarrow \rho^0 n$ at Incident Momentum 3-8 GeV/c by the Complex Angular Momentum Method (E)—V. N. Guzhavin, A. B. Kaidalov and A. F. Nilov. 15(1), 93-6 (Jul. 1972); CPM-7209C1045
- Study of the Reaction $\pi^+ p \rightarrow n + m\gamma$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163-5 (Aug. 1972); CPM-7210C1424
- The Reaction $\pi p \rightarrow \pi^+ \pi^+ n$ at $p_\pi = 4.45$ BeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, M. M. Sulkovskaya and A. F. Sustavov. 15(2), 166-8 (Aug. 1972); CPM-7210C1427
- K-Meson Charge Exchange and Factorization of the Effective Residues of Complex Poles (T)—N. P. Zotov, S. V. Tarasevich and V. A. Tsarev. 15(2), 209-10 (Aug. 1972); CPM-7210C1470
- Investigation of $\pi^+ p \rightarrow n + 6\gamma$ Reaction at 2.94 GeV/c (E)—L. S. Novikov. 15(3), 276-7 (Sep. 1972); CPM-7211A1905
- Total Cross Sections of the $\pi^+ p$ and $\pi^- d$ Interactions in the Momentum Region 15-60 GeV/c and the Glauber Correction (E)—Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. I. Petrkhin, Yu. D. Prokoshkin and D. A. Stoyanova. 15(5), 530-3 (Nov. 1972); CPM-7302E0056
- Investigation of the Reactions $\pi p \rightarrow n\pi^+ \pi^+ + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzheleпов, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Khazheev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Reactions of Single Σ and Λ Hyperon Production (E)—N. N. Nikolaev. 15(6), 687-90 (Dec. 1972); CPM-7302E0213

Dynamic Model for the 33 Phase Shift of πN Scattering (T)—A. N. Vall, Yu. H. Kafiev and V. V. Serebryakov. 16(1), 106–8 (Jan. 1973); CPM-7304E0210

Allowance for the Cuts on the Basis of the Regge Complex Pole Model (T)—N. P. Zotov and V. A. Tsarev. 16(2), 226–8 (Feb. 1973); CPM-7304E0329

Absorptive Model and the Reactions $\pi p \rightarrow p p$ and $\pi p \rightarrow p^0 n$ at a Momentum 3.25 GeV/c (T)—V. M. Guzhavin and M. S. Dubovikov. 16(2), 229–31 (Feb. 1973); CPM-7304E0332

Chiral SU(2) $\times$ SU(2) Dynamics and the $\pi^+ p \rightarrow p^0 \Delta^{++}_{1236}$ Reaction Close to the Threshold (T/E)—A. N. Zaslavskii and R. Lednický. 16(2), 232–7 (Feb. 1973); CPM-7304E0335

$\pi p \rightarrow \pi^0 p$ Reaction at $p_s = 4.45$ GeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, V. A. Suetin, M. M. Sulkovskaya and A. F. Sustavov. 16(3), 298–9 (Mar. 1973); CPM-7306D0394

Momentum Characteristics of Pion–Nucleon Interactions at 60 BeV (E)—Zh. S. Takibaev, I. Ya. Chasnikov, A. Kh. Vinitskii, V. G. Voinov, Ts. I. Shakhova, I. S. Strel'tsov and Z. V. Anzon. 16(3), 300–3 (Mar. 1973); CPM-7306D0396

Pole (in t) Parametrization of the Signature Factor and the Optical Model (T)—M. S. Dubovikov. 16(3), 316–9 (Mar. 1973); CPM-7306D0412

The Charge–Exchange Reaction $\pi^+ \pi^- \rightarrow \pi^0 \pi^0$ and the S Meson (E/T)—M. M. Makarov and V. V. Nelyubin. 16(4), 426–8 (Apr. 1973); CPM-7309D1142

Analysis of the Experimental Data on the Multiplicities of the Secondary Particles in πp , πn , and πC Collision at a Momentum 40 GeV/c (E)—Dubna. 16(5), 546–9 (May 1973); CPM-7309D1262

Lepton Pair Production Processes in Pion–Nucleon Interactions (T)—Yu. V. Kulish. 16(5), 605–10 (May 1973); CPM-7309D1321

Note Concerning the Symmetry of the Spectrum of the Longitudinal Pion Momenta in Semi-Inclusive πp Interactions at $p = 4$ GeV/c (E)—V. G. Grishin, Sh. V. Inogamov, B. S. Yuldashev and G. Jancso. 16(5), 611–2 (May 1973); CPM-7309D1327

Determination of the Neutron–Neutron Scattering Length from the Reaction $\pi d \rightarrow 2n + \gamma$ (T)—G. M. Shklyarevskii. 16(6), 700–4 (Jun. 1973); CPM-7310E1548

Model of the Partial-Wave Analysis of the Δ_{1236} Resonance Production Reactions $\pi N \rightarrow \pi^0 N$ Near Threshold with Allowance for the Triangle Graph Contribution (T)—S. A. Bunyatov, V. S. Kurbatov and A. K. Likhoded. 16(6), 705–8 (Jun. 1973); CPM-7310E1553

Estimate of the $\pi\pi$ Scattering Length a_0 by the Method of Separating the Triangle Graph Contribution in the Reactions $\pi N \rightarrow \pi^0 N$ (T/E)—S. A. Bunyatov, V. S. Kurbatov, A. K. Likhoded and H. M. Staudenmaier. 16(6), 709–12 (Jun. 1973); CPM-7310E1557

Quasithreshold Behavior of the Amplitude of the Process $\pi^+ N \rightarrow N + (\text{Virtual } \gamma)$ (T)—Yu. S. Surovtsev and F. G. Tkebuchava. 16(6), 713–4 (Jun. 1973); CPM-7310E1561

Continuous Sum Rules and Asymptotic Total πN Interaction Cross Sections (E)—Z. R. Babaev and V. S. Zamirlov. 16(6), 718–9 (Jun. 1973); CPM-7310E1566

Inclusive Production of Particles and Antiparticles in the Central Region of the Spectrum and Resonant πN Scattering (T/E)—L. É. Gendenshtein and A. B. Kaidalov. 16(6), 720–3 (Jun. 1973); CPM-7310E1568

2.20.50.90. Other Pion–Baryon Interactions

Remarks on the Nonuniqueness of the Effective Lagrangian in the Chiral SU(2) $\otimes$ SU(2) Symmetry (T)—Van Hieu Nguyen. 15(5), 565–6 (Nov. 1972); CPM-7302E0091

Baryons and Pseudoscalar Mesons in Broken Nonlinear Chiral SU(3) $\times$ SU(3) Dynamics (T)—M. I. Gaisak and V. Ya. Sabo. 16(1), 109–11 (Jan. 1973); CPM-7304E0213

2.20.55. Kaon–Baryon Interactions

K–Meson Charge Exchange and Factorization of the Effective Residues of Complex Poles (T)—N. P. Zotov, S. V. Tarasevich and V. A. Tsarev. 15(2), 209–10 (Aug. 1972); CPM-7210C1470

Relation between the KNA and KNE Coupling Constants and Bounds on Them (T)—O. V. Dumbrăis. 16(3), 335–6 (Mar. 1973); CPM-7306D0431

2.20.60. Meson–Meson Interactions

2.20.60.20. π – π Interactions

The Reaction $\pi p \rightarrow \pi^+ \pi^+ n$ at $p_s = 4.45$ BeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, M. M. Sulkovskaya and A. F. Sustavov. 15(2), 166–8 (Aug. 1972); CPM-7210C1427

Remarks on the Nonuniqueness of the Effective Lagrangian in the Chiral SU(2) $\otimes$ SU(2) Symmetry (T)—Van Hieu Nguyen. 15(5), 565–6 (Nov. 1972); CPM-7302E0091

The Charge–Exchange Reaction $\pi^+ \pi^- \rightarrow \pi^0 \pi^0$ and the S Meson (E/T)—M. M. Makarov and V. V. Nelyubin. 16(4), 426–8 (Apr. 1973); CPM-7309D1142

2.20.60.90. Other Meson–Meson Interactions

Consequences of Broken SU(3) $\times$ SU(3) Symmetry for Low Energy πK Scattering (T)—A. A. Afomian. 15(1), 71–3 (Jul. 1972); CPM-7209C1023

K–Matrix Model of Low–Energy πK Scattering (T)—A. A. Afonin. 15(3), 327–30 (Sep. 1972); CPM-7211A1956

Baryons and Pseudoscalar Mesons in Broken Nonlinear Chiral SU(3) $\times$ SU(3) Dynamics (T)—M. I. Gaisak and V. Ya. Sabo. 16(1), 109–11 (Jan. 1973); CPM-7304E0213

2.20.65. Super–High–Energy Interactions

2.20.65.10. General

Possible Mass Anisotropy and Interaction of Ultra–High–Energy Particles with an Electromagnetic Field (T)—V. N. Sazonov. 15(5), 590–4 (Nov. 1972); CPM-7302E0116

Connection of the Total Cross Section with the Diffraction Peak of Elastic Scattering (T)—V. I. Savrin, S. V. Semenov, N. E. Tyurin and O. A. Khrustalev. 16(2), 214–6 (Feb. 1973); CPM-7304E0317

Connection between the Total Interaction Cross Section and the Slope of the Diffraction Peak (T)—A. B. Kaidalov. 16(2), 217–9 (Feb. 1973); CPM-7304E0320

2.20.65.90. Other Super–High–Energy Interactions

Production of a Spin–J Resonance in the Dual Resonance Model (T)—L. V. Laperashvili and M. G. Safron. 15(5), 567–70 (Nov. 1972); CPM-7302E0093

Missing–Mass Spectra Observed in the Reaction $\pi^+ p \rightarrow p^+ X^-$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Eché, M. N. Kienzle–Focacci, W. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoiné, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550–3 (May 1973); CPM-7309D1266

2.20.90. Other Topics in Elementary–Particle Processes

Double Charge Exchange of π Mesons on Nuclei at High Energies (T)—S. R. Gevorkyan, A. V. Tarasov and Ch. Tséren. 15(1), 34–7 (Jul. 1972); CPM-7209C0986

Production of Pairs of Λ^0 Hyperons in Interactions of π^- Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, Zh. K. Karamyan, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44–6 (Jul. 1972); CPM-7209C0996

Structure of Observable Amplitudes for Photon – “Soft” Pion Interaction (E)—M. V. Terent'ev. 15(6), 665–74 (Dec. 1972); CPM-7302E0191

Interactions of 2.43–GeV/c Deuterons with Photographic Emulsion Nuclei (E)—E. Silesh, K. D. Tolstov, J. Tuček and G. S. Shabratoeva. 16(1), 57–9 (Jan. 1973); CPM-7304E0161

Ionization Loss of High–Energy Electrons (E)—A. S. Belousov, E. I. Malinovskii, S. V. Rusakov and P. N. Shareiko. 16(2), 189–90 (Feb. 1973); CPM-7304E0292

Coherent Production of Ω^- and Ξ Hyperons on Nuclei and the Determination of Their Spin and Parity (T)—B. Z. Kopeliovich. 16(3), 326–31 (Mar. 1973); CPM-7306D0422

The Vavilov–Cerenkov Effect in the X–Ray Wavelength Region (T)—A. V. Kolpakov. 16(5), 554–5 (May 1973); CPM-7309D1270

2.30. EXPERIMENTS ON PROPERTIES OF SPECIFIC PARTICLES AND RESONANCES, AND STATUS OF FUNDAMENTAL LAWS

2.30.20. Mesons and Meson Resonances

2.30.20.15. π Mesons

Calculation of the Electromagnetic Mass Difference of Pions in Chiral Dynamics (T)—A. N. Ivanov. 15(1), 64–70 (Jul. 1972); CPM-7209C1016

Atomic Decays of Elementary Particles (T)—L. L. Nemenov. 15(5), 582–4 (Nov. 1972); CPM-7302E0108

Pion Polarizability, Virtual Compton Effect, and the Decay $\pi \rightarrow e \nu \gamma$ (T)—M. V. Terent'ev. 16(1), 87–93 (Jan. 1973); CPM-7304E0191

Measurement of the Mean Life of the π^+ Meson by an Oscillographic Method (E)—A. F. Dunaitsev, Yu. D. Prokoshkin, E. A. Razuvaev, V. A. Sergeev and Yu. N. Simonov. 16(3), 292–7 (Mar. 1973); CPM-7306D0388

Production of Slow Pions in Interactions between High Energy Particles and Nuclei (E)—N. I. Kostanashvili, G. I. Debedevich, D. S. Nabichvishvili and G. I. Kharashvili. 16(5), 542–5 (May 1973); CPM-7309D1258

2.30.20.20. K Mesons

Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14–42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534–7 (Nov. 1972); CPM-7302E0060

Atomic Decays of K^0_L Mesons (T)—L. L. Nemenov. 16(1), 67–9 (Jan. 1973); CPM-7304E0171

The $K^0_L \rightarrow \mu^+ \mu^-$ Decay and a Possible Anomalous Muon-Hadron Interaction (T)—E. B. Bogomol'nyi, A. D. Dolgov, V. I. Zakharov, L. B. Okun', M. A. Shifman and M. Zh. Shmatikov. 16(1), 70–6 (Jan. 1973); CPM-7304E0174

The $K^0_L \rightarrow \mu \mu$ Decay and the Anomalous $2\pi\gamma \rightarrow 2\mu$ Interaction (T)—M. A. Shifman and N. Zh. Shmatikov. 16(1), 77–9 (Jan. 1973); CPM-7304E0181

The Sign of the $\pi^0 \rightarrow 2\gamma$ Electromagnetic Decay Constant (T)—M. V. Terent'ev. 16(5), 576–9 (May 1973); CPM-7309D1292

2.30.20.50. ρ , ω and η Mesons

Study of the Reaction $\pi^+ + p \rightarrow n + m\gamma$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163–5 (Aug. 1972); CPM-7210C1424

Investigation of $\pi^+ + p \rightarrow n + 6\gamma$ Reaction at 2.94 GeV/c (E)—L. S. Novikov. 15(3), 276–7 (Sep. 1972); CPM-7211A1905

Atomic Decays of Elementary Particles (T)—L. L. Nemenov. 15(5), 582–4 (Nov. 1972); CPM-7302E0108

Dynamical Chiral Symmetry and Cancellation of Divergences in the Mass Differences of Members of the A_1 , ρ and π Meson Isomultiplets (T)—A. B. Kaganovich. 15(6), 691–5 (Dec. 1972); CPM-7302E0217

The Decays $\eta \rightarrow \pi\pi\gamma$, $\eta \rightarrow 2\gamma$ and $\eta \rightarrow \pi\pi\gamma\gamma$ and the Form Factor of the Vector Current in K_M Decay (T)—V. V. Solov'ev and M. V. Terent'ev. 16(1), 82–6 (Jan. 1973); CPM-7304E0186

$\pi^+ \pi^- \rightarrow \pi^0 \rho$ Reaction at $p_\pi = 4.45$ GeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, V. A. Suetin, M. M. Sulkovskaya and A. F. Sustavov. 16(3), 298–9 (Mar. 1973); CPM-7306D0394

2.30.20.70. A_1 , A_2 and B Mesons

Absorption Model and Spin Parity of the B Meson (T)—V. M. Guzhavin and M. S. Dubovikov. 16(3), 320–2 (Mar. 1973); CPM-7306D0416

2.30.20.90. Other Mesons and Meson Resonances

Spin Effects in Production of Quasinuclear Mesons by Antiprotons (T)—O. D. Dal'karov, V. B. Mandel'tsweig and V. A. Khangulyan. 15(1), 100–2 (Jul. 1972); CPM-7209C1052

The Reaction $\pi p \rightarrow \pi^+ \pi^+ n$ at $p_\pi = 4.45$ BeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, M. M. Sulkovskaya and A. F. Sustavov. 15(2), 166–8 (Aug. 1972); CPM-7210C1427

Determination of the Spin-Parity of the $X^0(960)$ Meson in Proton-Antiproton Annihilation at Rest (E)—L. É. Genina, A. N. Zaslavskii and R. Lednicky. 15(5), 571–3 (Nov. 1972); CPM-7302E0097

Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova, I. V. Chuvilo and V. A. Shebanov. 15(6), 636–7 (Dec. 1972); CPM-7302E0162

2.30.30. Baryons and Baryon Resonances

2.30.30.30. Baryon Resonances with S = 0

Dynamic Model for the 33 Phase Shift of πN Scattering (T)—A. N. Vall, Yu. H. Kafiev and V. V. Serebryakov. 16(1), 106–8 (Jan. 1973); CPM-7304E0210

Model of the Partial-Wave Analysis of the Δ_{1236} Resonance Production Reactions $\pi N \rightarrow \pi \pi N$ Near Threshold with Allowance for the Triangle Graph Contribution (T)—S. A. Bunyatov, V. S. Kurbatov and A. K. Likhod. 16(6), 705–8 (Jun. 1973); CPM-7310E1553

2.30.30.40. Hyperons and Hyperon Resonances

Production of Pairs of Λ^0 Hyperons in Interactions of π^- Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, Zh. K. Karamyan, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44–6 (Jul. 1972); CPM-7209C0996

Single Hyperon Production and Weak Decays of the $3/2^+$ Decuplet. —N. N. Nikolaev. 15(5), 547–8 (Nov. 1972); CPM-7302E0073

Coherent Production of Ω^- and Ξ Hyperons on Nuclei and the Determination of Their Spin and Parity (T)—B. Z. Kopeliovich. 16(3), 326–31 (Mar. 1973); CPM-7306D0422

2.30.40. Leptons

On the Decay Mode $\mu^+ \rightarrow e^+ \nu_e \bar{\nu}_\mu e^+ e^-$ (T)—D. Yu. Bardin, Ts. G. Istatkov and G. B. Mitsel'makher. 15(2), 161–2 (Aug. 1972); CPM-7210C1422

On the Problem of Heavy Leptons (T)—S. S. Gershtein, L. G. Landsberg and V. N. Folomeshkin. 15(2), 195–7 (Aug. 1972); CPM-7210C1456

Electromagnetic Interaction of the Muon and the $K_L \rightarrow 2\mu$ Decay (T)—G. V. Grigoryan, N. N. Nikolaev and L. B. Okun'. 15(5), 554–5 (Nov. 1972); CPM-7302E0080

2.30.50. Hypothetical Particles

2.30.50.20. Intermediate Bosons

Electromagnetic Production of W-Meson Pairs (T)—N. L. Ter-Isaakyan and V. A. Khoze. 15(1), 51–5 (Jul. 1972); CPM-7209C1003

Erratum: Angular and Momentum Distributions of μ^- Mesons in the Reaction $\nu + Z \rightarrow \mu^- + W^+ + Z$ [14, 235 (2)] (T)—E. D. Zhizhin, Yu. P. Nikitin, G. V. Rozhnov and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070

Erratum: Angular and Momentum Distributions of μ^+ Mesons Resulting from the Decay of the W^+ Boson in the Reaction $\nu + Z \rightarrow \mu^+ + Z + W^+$ [14, 236 (2)] (T)—A. V. Berkov, E. D. Zhizhin, Yu. P. Nikitin and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070

Current Algebra and the Problem of Cancellation of the Divergences in the Isotopic $\Delta T = 2$ Mass Differences (T)—A. B. Kaganovich. 15(5), 561–4 (Nov. 1972); CPM-7302E0087

Muon Production in the Process $\nu_\mu + N \rightarrow \mu^- + W^+ + N'$, Taking into Account the Neutrino Energy Spectrum (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(3), 304–8 (Mar. 1973); CPM-7306D0400

The Process $\nu_{\mu} + N \rightarrow \mu^- + W^+ + N'$ and the Possibility of Detecting the W Boson from the Kinematic Characteristics of the Lepton from the Decay $W^+ \rightarrow l^+ + \nu_l$ (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(6), 686–9 (Jun. 1973); CPM-7310E1534

2.30.50.90. Other Hypothetical Particles

On the Problem of Heavy Leptons (T)—S. S. Gershtein, L. G. Landsberg and V. N. Polomeshkin. 15(2), 195–7 (Aug. 1972); CPM-7210C1456

Some Comments on the Search for Quarks Using a 70 GeV Accelerator (T/E)—A. M. Zaitsev and L. G. Landsberg. 15(6), 656–64 (Dec. 1972); CPM-7302E0182

$K_L \rightarrow 2\mu$ Decay and the Possible Existence of a Light Vector Meson (T)—A. D. Dolgov, A. G. Doigolenko, V. I. Zakharov and L. B. Okun'. 16(2), 209–13 (Feb. 1973); CPM-7304E0312

2.40. COSMIC RAYS

2.40.30. Secondary Cosmic Rays, Including Air Showers

Development of Superhigh-Energy Electron-Photon Showers in the Atmosphere (T)—D. D. Krasil'nikov, V. P. Kulakovskaya and S. I. Nikol'skii. 15(1), 47–50 (Jul. 1972); CPM-7209C0999

Investigation of Underground Nuclear Interactions of Cosmic Ray Muons (E)—I. B. Bezrukov, V. I. Beresnev, G. T. Zatspin, M. I. Nyunin, O. G. Ryazhskaya and L. N. Stepanets. 15(2), 176–83 (Aug. 1972); CPM-7210C1437

Angular and Spatial Distributions of Particles of Electron-Photon Shower Particles (T)—V. V. Guzhavin, I. P. Ivanenko, A. A. Kirillov and Yu. P. Paskhalov. 15(3), 278–81 (Sep. 1972); CPM-7211A1907

Increase in the Transverse Momenta in Nuclear Interactions at Energies $\geq 10^{12}$ eV from EAS Data (E)—Yu. A. Fomin and G. B. Khristiansen. 15(4), 423–6 (Oct. 1972); CPM-7212D1968

Generation and Interaction of Muons with Energies $E_{\mu} \gtrsim 10^{12}$ eV (E)—G. B. Khristiansen, O. V. Vedenev and Yu. A. Nechin. 15(5), 538–42 (Nov. 1972); CPM-7302E0064

Influence of Single Scattering Processes on the Horizontal Fluxes of Cosmic Muons in Water (T)—A. T. Matachun, Yu. A. Trubkin and V. M. Fedorov. 16(2), 191–3 (Feb. 1973); CPM-7304E0294

Lateral Distribution of Electrons in an Inhomogeneous Atmosphere (T)—V. V. Guzhavin, I. P. Ivanenko and Yu. I. Paskhalov. 16(4), 417–20 (Apr. 1973); CPM-7309D1133

Analysis of Theoretical and Experimental Data on the Multiplicity of Shower Particles in High-Energy Hadron Interactions (R)—V. V. Avakyan, M. I. Keropyan and E. A. Mamidzhanyan. 16(4), 423–5 (Apr. 1973); CPM-7309D1139

2.40.90. Other Topics in Cosmic Rays

Analysis of Present Experimental Data on Ultra-high-energy Cosmic Rays (E)—G. V. Kulikov and G. V. Khristiansen. 15(4), 427–32 (Oct. 1972); CPM-7212D1972

Ultra-High-Energy Cosmic Rays and a Possible Generalization of Relativistic Theory (T)—D. A. Kirzhnits and V. A. Chechin. 15(5), 585–9 (Nov. 1972); CPM-7302E0111

Comparison of the Characteristics of the Interaction of Protons and Neutrons with C, Fe, and Pb Nuclei (E)—M. O. Azaryan, E. A. Mamidzhanyan, R. M. Martirosov and R. A. Suleimanov. 16(6), 678–81 (Jun. 1973); CPM-7310E1526

2.50. NUCLEAR STRUCTURE

2.50.10. Nuclear Properties

2.50.10.10. General Descriptive

A Model for the Equations of Nuclear Physics (T)—A. I. Baz' and M. V. Zhukov. 16(1), 31–7 (Jan. 1973); CPM-7304E0135

2.50.10.20. Masses, Binding Energies and Q Values

Measurements of Atomic Masses in the Region from Titanium to Iron (E)—R. A. Demirkhanov, V. V. Dorokhov and M. I. Dzikuya. 15(5), 475–8 (Nov. 1972); CPM-7302E0001

Generalized Method of Harmonic Polynomials (T)—A. M. Gorbатов. 16(4), 391–4 (Apr. 1973); CPM-7309D1107

Fission Barriers of Odd Nuclei (T)—G. D. Adeev and P. A. Cherdantsev. 16(5), 507–10 (May 1973); CPM-7309D1223

2.50.10.30. Radii, Shape, Charge and Mass Density Distributions

Nuclear Densities in the K-Harmonics Method (T)—A. P. Levich. 15(4), 404–5 (Oct. 1972); CPM-7212D1949

Method for the Calculation of the Nuclear Critical Charge (T)—V. S. Popov. 15(5), 595–600 (Nov. 1972); CPM-7302E0121

Calculation of Nuclear Deformation of the U(3(A-1)) Scheme Model (T)—A. Petruskas, G. Kamuntavicius and K. Jankauskas. 16(2), 168–72 (Feb. 1973); CPM-7304E0271

Analysis of Elastic Electron Scattering on Light Nuclei on the Basis of Symmetrized Fermi-Density Distribution (E/T)—Yu. N. Eldyshev, V. N. Lukyanov and Yu. S. Pol. 16(3), 282–6 (Mar. 1973); CPM-7306D0378

Shapes of Heavy Nuclei (T)—A. V. Yushkov. 16(4), 380–1 (Apr. 1973); CPM-7309D1096

2.50.10.40. Spin, Parity and Isobaric Spin

Study of Cl^{33} Excited States by Elastic Scattering of Polarized Protons by S^{32} (E)—I. D. Lopatko, V. I. Borovlev, G. B. Andreev and R. P. Slabospitskii. 16(2), 127–8 (Feb. 1973); CPM-7304E0230

Isobaric Configuration 0^+ States, Proton-Neutron Hole in a Spherical Nucleus (T)—Yu. V. Gaponov and Yu. S. Lyutostanskii. 16(3), 270–6 (Mar. 1973); CPM-7306D0366

2.50.10.50. Electromagnetic Moments

Transition Toroidal Form Factors of Light Nuclei (T)—R. É. Bluvshstein, V. M. Dubovik and A. A. Cheshkov. 15(1), 59–63 (Jul. 1972); CPM-7209C1011

Magnetic Moments of Three-Particle Nuclei (T)—N. B. Krupennikova. 15(3), 260–1 (Sep. 1972); CPM-7211A1889

E2 Transition Probabilities in the Asymmetric Rigid Rotor Model (T)—E. V. Gai and N. S. Rabotnov. 15(4), 396–8 (Oct. 1972); CPM-7212D1941

E2 Transitions and Quadrupole Moments of States with High Spin in the Collective Model (T)—A. P. Budnik, N. S. Rabotnov and A. A. Seregin. 16(1), 17–8 (Jan. 1973); CPM-7304E0121

Probabilities of E2 Transitions and Mean Values of Quadrupole Moments of High Spin States in the Asymmetric Top Model (T)—E. V. Gai and N. S. Rabotnov. 16(2), 159–61 (Feb. 1973); CPM-7304E0262

Rigid Asymmetrical Rotator and Deformability of Nuclei (T)—A. D. Fedorov and V. A. Knyr. 16(4), 376–9 (Apr. 1973); CPM-7309D1092

Form Factors and Transition Densities of the Quadrupole and Octupole Vibrations of the Cl^{32} Nucleus (T)—I. S. Gul'karov. 16(4), 386–90 (Apr. 1973); CPM-7309D1102

Magnetic Moments of Highly Excited States of Atomic Nuclei (T)—V. V. Voronov and V. G. Solov'ev. 16(6), 653–6 (Jun. 1973); CPM-7310E1501

2.50.10.60. Level Density, Level Spacing and Level Structure

The Asymmetric Rigid Rotator Model with Modified Moments of Inertia (T)—A. D. Fedorov. 15(1), 22–3 (Jul. 1972); CPM-7209C0974

E1 and E2 Transitions in Medium and Heavy Spherical Nuclei (E)—S. P. Kamerdzhev. 15(4), 379–86 (Oct. 1972); CPM-7212D1924

Lifetime of the 2.734-MeV Level of Sr^{88} (E)—D. K. Kaipov, Yu. G. Kosyak, L. N. Smirin and Yu. K. Subnyi. 15(6), 603–4 (Dec. 1972); CPM-7302E0129

Radiation of p-Levels of Even-Odd Nuclei with $21 \leq A \leq 41$ in Cascade Emission Following Capture of Thermal Neutrons (E)—A. M. Demidov, J. D. Jafar, M. A. Khalil and F. A. Hussein. 16(1), 1–5 (Jan. 1973); CPM-7304E0105

Spin Dependence of the Density of the Particle-Hole State of Atomic Nuclei in the Fermi-Gas Model (T)—Yu. V. Sokolov. 16(1), 14–6 (Jan. 1973); CPM-7304E0118

Level Density of Compound Nuclei with $A=130$ –200 and Other Nuclear Properties (E)—V. P. Vertebnyi, A. I. Kalchenko and M. V. Pasechnik. 16(1), 19–20 (Jan. 1973); CPM-7304E0123

Levels and γ Transitions in Cu^{64} from the Reaction $\text{Ni}^{64}(\text{p}, \text{n})\text{Cu}^{64}$ (E)—B. Ya. Guzhovskii, S. N. Abramovich, A. G. Zvenigorodskii and S. V. Trusillo. **16**(2), 123–6 (Feb. 1973); CPM-7304E0226

Nuclear Reactions Produced by α Particles on Co^{59} Nuclei (E)—O. A. Zhukova, V. I. Kanashevich, S. V. Laptev and G. P. Chursin. **16**(2), 134–7 (Feb. 1973); CPM-7304E0237

Density of Excited Particle Hole States in the Shell Model (E)—A. V. Ignatyuk and Yu. V. Sokolov. **16**(2), 155–8 (Feb. 1973); CPM-7304E0258

2.50.20. Nuclear Forces, Effective Interactions

K-harmonics Method in the Few-nucleon Problem (T)—V. D. Éfros. **15**(2), 128–36 (Aug. 1972); CPM-7210C1389

Matrix Elements for a Three Nucleon System in K-Harmonics Method (T)—V. V. Pustovalov. **15**(4), 399–403 (Oct. 1972); CPM-7212D1944

Use of the K-Harmonics Method for Spin-Orbit Splitting Calculations of Light Nuclei (T)—A. I. Baz', A. M. Gorbato, V. F. Demin, Yu. E. Pokrovskii and Yu. K. Rogov. **16**(2), 179–81 (Feb. 1973); CPM-7304E0282

2.50.30. Few Nucleon Systems

K-harmonics Method in the Few-nucleon Problem (T)—V. D. Éfros. **15**(2), 128–36 (Aug. 1972); CPM-7210C1389

Magnetic Moments of Three-Particle Nuclei (T)—N. B. Krupennikova. **15**(3), 260–1 (Sep. 1972); CPM-7211A1889

Short-Range Nucleon-Nucleon Repulsion and Low-Energy Three-Nucleon Parameters (T)—V. F. Kharchenko, S. A. Shadchin and S. A. Storozhenko. **15**(5), 493–6 (Nov. 1972); CPM-7302E0019

Solution of the Skornyakov-Ter-Martirosyan Equations for Three Nucleons with Cutoff at Large Momenta (T)—V. F. Kharchenko. **16**(2), 173–5 (Feb. 1973); CPM-7304E0276

Potential Harmonics in the Three-Body Problem (T)—V. V. Pustovalov. **16**(2), 176–8 (Feb. 1973); CPM-7304E0279

2.50.40. Nuclear Structure Models and Methods

2.50.40.15. Shell Models

Influence of the Fractional Parentage Structure of the Ground State on the Photodisintegration of Light Nuclei (T)—N. G. Goncharova. **15**(2), 137–40 (Aug. 1972); CPM-7210C1398

Derivation of Bohr-Mottelson Collective Model Equations on the Basis of the Many-Body Problem Hamiltonian (T)—A. Ya. Dzyublik, V. I. Ovcharenko, A. I. Steshenko and G. F. Filippov. **15**(5), 487–92 (Nov. 1972); CPM-7302E0013

Density of Excited Particle Hole States in the Shell Model (E)—A. V. Ignatyuk and Yu. V. Sokolov. **16**(2), 155–8 (Feb. 1973); CPM-7304E0258

Model of the Equations of Nuclear Physics. One Decay Channel (T)—A. I. Baz' and M. V. Zhukov. **16**(5), 529–36 (May 1973); CPM-7309D1245

Parametrization of $B(E2)$ Transitions in Deformed Even-Even Nuclei Within the Framework of the $\text{SU}(3)$ Scheme (T/E)—P. P. Raichev. **16**(6), 643–6 (Jun. 1973); CPM-7310E1491

2.50.40.20. Collective Models

The Asymmetric Rigid Rotator Model with Modified Moments of Inertia (T)—A. D. Fedorov. **15**(1), 22–3 (Jul. 1972); CPM-7209C0974

The Hydrodynamic Limit for Finite Fermi Systems (T)—B. A. Romyantsev. **15**(1), 28–30 (Jul. 1972); CPM-7209C0980

Nonadiabatic Theory of Rotational-Vibrational Excitations in Atomic Nuclei (T)—P. V. Skorobogatov. **15**(2), 124–7 (Aug. 1972); CPM-7210C1385

High-Spin Levels of Even-Even Nuclei in a Phenomenological Collective Model (T)—A. P. Budnik, N. S. Rabotnov and A. A. Seregin. **15**(3), 262–3 (Sep. 1972); CPM-7211A1891

Collective 0^+ and 2^+ States in Deformed Nuclei (T)—B. A. Romyantsev and V. B. Telitsyn. **15**(4), 387–91 (Oct. 1972); CPM-7212D1932

Davydov-Chaban Model Analog (T)—A. D. Fedorov. **15**(4), 392–5 (Oct. 1972); CPM-7212D1937

Oscillations of a Fermi Liquid Drop and Giant Resonance in Medium and Heavy Nuclei (T)—I. A. Akhiezer, B. I. Barts and V. T. Lazurik-Él'tsufin. **15**(5), 484–6 (Nov. 1972); CPM-7302E0010

Derivation of Bohr-Mottelson Collective Model Equations on the Basis of the Many-Body Problem Hamiltonian (T)—A. Ya. Dzyublik, V. I. Ovcharenko, A. I. Steshenko and G. F. Filippov. **15**(5), 487–92 (Nov. 1972); CPM-7302E0013

E2 Transitions and Quadrupole Moments of States with High Spin in the Collective Model (T)—A. P. Budnik, N. S. Rabotnov and A. A. Seregin. **16**(1), 17–8 (Jan. 1973); CPM-7304E0121

Probabilities of E2 Transitions and Mean Values of Quadrupole Moments of High Spin States in the Asymmetric Top Model (T)—E. V. Gai and N. S. Rabotnov. **16**(2), 159–61 (Feb. 1973); CPM-7304E0262

Calculation of Nuclear Deformation of the $\text{U}(3\text{A}-1)$ Scheme Model (T)—A. Petrauskas, G. Kamuntavicius and K. Jankauskas. **16**(2), 168–72 (Feb. 1973); CPM-7304E0271

Rotational Invariance, Moments of Inertia, and 1^+ States in Deformed Nuclei (T)—N. I. Pyatov and M. I. Cherni. **16**(5), 514–8 (May 1973); CPM-7309D1230

Method of Generalized Density Matrix in the Theory of Collective Excitations (T)—S. T. Belyaev and V. G. Zelevinskii. **16**(6), 657–64 (Jun. 1973); CPM-7310E1505

2.50.40.30. Cluster Models

Elastic and Inelastic Glauber Scattering of Protons by C^{12} in the α -Particle Model (T)—A. N. Antonov and E. V. Inopin. **16**(1), 38–41 (Jan. 1973); CPM-7304E0142

Excitation of Nuclear Vibrational Levels by Electrons According to the α -Particle Model (T)—A. N. Antonov and E. V. Inopin. **16**(2), 182–4 (Feb. 1973); CPM-7304E0285

Investigation of the Cluster Structure of the Be^8 Nucleus (T)—I. Sh. Vashakidze and T. R. Dzhalaganiya. **16**(4), 382–5 (Apr. 1973); CPM-7309D1098

The Cluster Model and the Structure of the C^{12} Nucleus (T)—I. Sh. Vashakidze and T. R. Dzhalaganiya. **16**(5), 519–21 (May 1973); CPM-7309D1235

2.50.40.40. Microscopic Methods (e.g. Hartree-Fock and Random Phase)

On the Capability of Neutron Spectroscopy for the Study of Highly Excited States (Resonances) (T)—B. G. Solov'ev. **15**(4), 410–5 (Oct. 1972); CPM-7212D1955

Influence of Spin and Quadrupole Interactions on the Properties of the State with $K^\pi = 1^+$ in Deformed Even-Even Nuclei (T)—V. M. Mikhailov and V. V. Pogosyan. **16**(2), 162–7 (Feb. 1973); CPM-7304E0265

2.50.40.90. Other Models and Methods

Spin Dependence of the Density of the Particle-Hole State of Atomic Nuclei in the Fermi-Gas Model (T)—Yu. V. Sokolov. **16**(1), 14–6 (Jan. 1973); CPM-7304E0118

2.50.50. Experiments on Collective Motion in Nuclei

Excitation of Collective States of Some Medium Nuclei by 14-MeV Neutrons (E)—B. E. Leshchenko, M. E. Gurtovoi, A. S. Kukhlenko and V. I. Strizhak. **15**(1), 5–9 (Jul. 1972); CPM-7209C0957

2.50.60. Hypernuclei

Ratio of Nonmesonic and π^- -Decay Probabilities and the Depth of Potential Wells for Λ in Hypernuclei (T)—V. A. Filimonov. **15**(2), 189–91 (Aug. 1972); CPM-7210C1450

Influence of Majorana Forces on the Properties of p-Shell Hypernuclei (T)—A. B. Kochetov and B. A. Khrylin. **16**(1), 25–6 (Jan. 1973); CPM-7304E0129

2.55. NUCLEAR DECAY

2.55.20. Electromagnetic Transitions

2.55.20.10. General

- Doorway States of "Phonon + Particle" Type in (n, γ) Reactions on $N=28$ and $N=82$ Nuclei (E)—V. A. Kna't'ko and E. A. Rudak. 15(6), 626–8 (Dec. 1972); CPM-7302E0152
- E2 Transitions and Quadrupole Moments of States with High Spin in the Collective Model (T)—A. P. Budnik, N. S. Rabotnov and A. A. Seregin. 16(1), 17–8 (Jan. 1973); CPM-7304E0121
- Realization of the Physical Basis for $Su(3)$ and the Probabilities of E1 Transitions in the $Su(3)$ Formalism (T)—G. N. Afanas'ev, S. A. Abramov and P. P. Raichev. 16(1), 27–30 (Jan. 1973); CPM-7304E0131
- Probabilities of E2 Transitions and Mean Values of Quadrupole Moments of High Spin States in the Asymmetric Top Model (T)—E. V. Gai and N. S. Rabotnov. 16(2), 159–61 (Feb. 1973); CPM-7304E0262
- Influence of Spin and Quadrupole Interactions on the Properties of the State with $K^\pi=1^+$ in Deformed Even–Even Nuclei (T)—V. M. Mikhailov and V. V. Pogosyan. 16(2), 162–7 (Feb. 1973); CPM-7304E0265

2.55.20.20. Transitions in Nuclei with $A \leq 90$

- Gamma Radiation in Intermediate Neutron Radioactive Capture (E)—A. F. Gamaliĭ, B. V. Zemtsev, V. B. Ivanov, B. V. Nesterov and L. P. Kham'yanov. 15(1), 1–4 (Jul. 1972); CPM-7209C0953
- Transition Toroidal Form Factors of Light Nuclei (T)—R. Ė. Bluvshĭĭ, V. M. Dubovik and A. A. Cheshkov. 15(1), 59–63 (Jul. 1972); CPM-7209C1011
- Spectra of γ Rays Produced in Si^{30} and S^{34} Capture of Thermal Neutrons (E)—Dzh. D. Dzhafer, A. A. Abdullah, N. Kh. Al-Kuraishi, M. S. Al'vash, M. A. Khalil and A. M. Demidov. 15(6), 605–7 (Dec. 1972); CPM-7302E0131
- Nonconservation of P-Parity in γ Decay of K^4 (E)—B. M. Lobashov, V. A. Nazarenko, N. A. Bozovoi, L. M. Smotritskii, G. I. Kharkevich and V. A. Knyaz'kov. 15(6), 632–5 (Dec. 1972); CPM-7302E0158
- Radiation of p-Levels of Even–Odd Nuclei with $21 \leq A \leq 41$ in Cascade Emission Following Capture of Thermal Neutrons (E)—A. M. Demidov, J. D. Jafar, M. A. Khalil and F. A. Hussein. 16(1), 1–5 (Jan. 1973); CPM-7304E0105
- Levels and γ Transitions in Cu^{64} from the Reaction $Ni^{64}(p, n\gamma)Cu^{64}$ (E)—B. Ya. Guzhovskii, S. N. Abramovich, A. G. Zvenigorodskii and S. V. Trusillo. 16(2), 123–6 (Feb. 1973); CPM-7304E0226

2.55.20.30. Transitions in Nuclei with $A \geq 90$

- Gamma Radiation in Intermediate Neutron Radioactive Capture (E)—A. F. Gamaliĭ, B. V. Zemtsev, V. B. Ivanov, B. V. Nesterov and L. P. Kham'yanov. 15(1), 1–4 (Jul. 1972); CPM-7209C0953
- Neutron Resonances of Sm Isotopes (E)—E. N. Karzhavina and A. B. Popov. 15(3), 225–7 (Sep. 1972); CPM-7211A1854
- Use of the Perturbed Angle $e_{an\gamma}$ Correlation to Measure the Hg^{197} 133-keV State g-Factor (E)—N. D. Kornienko, B. G. Kul'Chinskii, A. I. Levon and O. F. Nemets. 15(4), 353–6 (Oct. 1972); CPM-7212D1898
- Angular Distribution of Low Energy Neutrons from Nuclear μ^- Capture in Sulfur and Calcium (E)—I. Wojtkowska, V. S. Evseev, T. Kozłowski, A. A. Nikolina and V. S. Roganov. 15(5), 523–5 (Nov. 1972); CPM-7302E0049
- De-Excitation of Even–Odd Nuclei in the Range $91 \leq N \leq 113$ After Capturing Thermal Neutrons (T)—L. V. Groshev, A. M. Demidov and L. L. Sokolovskii. 16(3), 245–8 (Mar. 1973); CPM-7306D0341
- Lifetimes of the Rotational Levels of Yb^{164} Measured by the Doppler Effect in the Recoil Nuclei (E)—B. Bochev, S. A. Karamyan, T. Kutsarova, Ya. Ukhrein, E. Nadzhakov, Ts. Venkova and R. Kalpakchieva. 16(4), 355–8 (Apr. 1973); CPM-7309D1071
- Investigation of the Decay of Tl^{194} (E)—B. Amov, T. Vandlik, J. Vandlik, Ts. Vylov, Zh. Zhelev, N. G. Zaitseva, I. Penev and H. Tyroff. 16(5), 487–90 (May 1973); CPM-7309D1203

2.55.20.40. Internal Conversion and Extranuclear Effects

- Ratios of the Internal Conversion Coefficients for M4 Transitions in the Nuclei $Te^{121,123,125,127,129}$ (E)—R. A. Kalinauskas, K. V. Makaryunas and R. I. Davidonis. 15(4), 350–1 (Oct. 1972); CPM-7212D1895

2.55.30. β -Decay and Electron and Muon Capture

- Conservation of the Isospin of Low-Lying Collective States of Heavy Nuclei (T)—E. A. Nersesov. 15(2), 121–3 (Aug. 1972); CPM-7210C1382
- Neutron Channel in μ^- Capture and Short-Range Nucleon–Nucleon Correlations. The Reaction $\mu^- + He^4H^3 + n + \nu$ (E)—Yu. A. Salganik and R. A. Ėramzhyan. 15(3), 287–9 (Sep. 1972); CPM-7211A1916
- Neutron Energy Spectrum from Absorption of Negative Muons by O, S, Ca, and Pb Nuclei (E)—I. Wojtkowska, V. S. Evseev, T. Kozłowski and V. S. Roganov. 15(6), 639–44 (Dec. 1972); CPM-7302E0165
- Internal Bremsstrahlung Accompanying a Unique β Transition of Cs^{137} (E)—I. S. Batkin and Yu. G. Smirnov. 16(4), 405–6 (Apr. 1973); CPM-7309D1121

2.55.40. α -Decay

- Splitting of the 5793 keV Doublet in the Ac^{225} α Spectrum (E)—N. A. Golovkov, B. S. Dzhelepov, R. B. Ivanov, M. A. Mikhailova and V. G. Chumin. 15(4), 349 (Oct. 1972); CPM-7212D1894
- Correlation of α Particles and γ Rays from the Reaction $Al^{27}(p, \alpha\gamma)Mg^{24}$ for 6.40-MeV Protons (E)—S. S. Vasil'ev, A. S. Dem'yanova, V. S. Zazulin, S. D. Kostyuchenkov, T. N. Mikhaleva, S. F. Nikiyakiĭ and D. L. Chupronov. 15(4), 367–8 (Oct. 1972); CPM-7212D1912
- Absolute Probabilities of the α Decay of Even–Even Nuclei with $174 \leq A \leq 232$ and Superfluidity (T)—S. G. Kadmskiiĭ, V. E. Kalechits and A. A. Martynov. 16(4), 400–4 (Apr. 1973); CPM-7309D1116

2.55.90. Other Topics in Nuclear Decay

- Ratio of Nonmesonic and π^- -Decay Probabilities and the Depth of Potential Wells for Λ in Hypernuclei (T)—V. A. Filimonov. 15(2), 189–91 (Aug. 1972); CPM-7210C1450
- Correlations of Identical Particles Emitted by Highly Excited Nuclei (T)—G. I. Kopylov and M. I. Podgoretskii. 15(2), 219–23 (Aug. 1972); CPM-7210C1480
- Partial Widths and Strong Coupling of Channels (T)—S. I. Grishanova, S. D. Niledvin, N. N. Titarenko and E. L. Yadrovskii. 15(3), 264–5 (Sep. 1972); CPM-7211A1893
- A Model for the Equations of Nuclear Physics (T)—A. I. Baz' and M. V. Zhukov. 16(1), 31–7 (Jan. 1973); CPM-7304E0135
- Measurement of Compound–Nucleus Lifetime by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, A. M. Kucher, F. Normuratov and Yu. Ts. Oganessian. 16(2), 140–3 (Feb. 1973); CPM-7304E0243
- Experiments Aimed at Finding Proton Decay from the Ground State (E)—D. D. Bogdanov, V. P. Bochinn, V. A. Karnaukhov and L. A. Petrov. 16(5), 491–6 (May 1973); CPM-7309D1207

2.60. NUCLEAR REACTIONS AND SCATTERING

2.60.10. Nuclear Reactions and Scattering in General

2.60.10.10. General Problems

- Investigation of Particles Produced at 90° in the Laboratory Frame in Nucleus–Nucleus Interactions (T)—N. A. Marutyan. 15(6), 654–5 (Dec. 1972); CPM-7302E0180
- Measurement of Compound–Nucleus Lifetime by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, A. M. Kucher, F. Normuratov and Yu. Ts. Oganessian. 16(2), 140–3 (Feb. 1973); CPM-7304E0243

2.60.10.20. Coupled-Channel Methods and Many-Body-Theory Methods

- K-harmonics Method in the Few-nucleon Problem (T)—V. D. Efros. 15(2), 128–36 (Aug. 1972); CPM-7210C1389
- Partial Widths and Strong Coupling of Channels (T)—S. I. Grishanova, S. D. Niledvin, N. N. Titarenko and E. L. Yadrovskii. 15(3), 264–5 (Sep. 1972); CPM-7211A1893
- Correlated Basis in the Problem of Several Nucleons (T)—Yu. I. Fenin and V. D. Efros. 15(5), 497–502 (Nov. 1972); CPM-7302E0023
- A Model for the Equations of Nuclear Physics (T)—A. I. Baz' and M. V. Zhukov. 16(1), 31–7 (Jan. 1973); CPM-7304E0135
- The Need for Taking into Account the Second-Order Terms of the Distorted Wave Method in the Three-Particle Scattering Problem (T)—V. S. Potapov. 16(1), 42–4 (Jan. 1973); CPM-7304E0146
- The n-Body Problem. Matrix Elements of Permutations (T)—M. S. Kil'dyushov. 16(1), 117–9 (Jan. 1973); CPM-7304E0221

2.60.10.30. Plane-Wave and Distorted-Wave Born Approximations

- Examination of Distorted Wave Method for Stripping Reactions to Resonant States (T)—V. E. Bunakov, K. A. Gridnev and L. V. Krasnov. 15(5), 508–12 (Nov. 1972); CPM-7302E0034
- The Need for Taking into Account the Second-Order Terms of the Distorted Wave Method in the Three-Particle Scattering Problem (T)—V. S. Potapov. 16(1), 42–4 (Jan. 1973); CPM-7304E0146

2.60.10.40. Optical and Diffraction Models

- Influence of Nonlocality on Inelastic α -Particle Scattering (T)—V. V. Tokarevskii. 15(5), 503–7 (Nov. 1972); CPM-7302E0029

2.60.10.50. Statistical Theory and Fluctuations of Cross Sections

- Theory of (γ, N) Reactions at Energies Above the Pion Production Threshold (T)—I. A. Akheizer and B. I. Barts. 15(2), 143–6 (Aug. 1972); CPM-7210C1404
- The Hauser-Feshbach Method for Many Particle-Nuclear Reactions (T)—A. E. Savilev. 15(2), 154–6 (Aug. 1972); CPM-7210C1415
- Nuclear Reactions Produced by α Particles on Co^{59} Nuclei (E)—O. A. Zhukova, V. I. Kanashovich, S. V. Laptev and G. P. Chursin. 16(2), 134–7 (Feb. 1973); CPM-7304E0237
- Concerning the Description of Direct $(n, 2n)$ Processes in Some Nuclei (T)—S. N. Ezhov and V. S. Ol'khovskii. 16(2), 185–6 (Feb. 1973); CPM-7304E0288

2.60.10.90. Other Topics

- Correlations of Identical Particles Emitted by Highly Excited Nuclei (T)—G. I. Kopylov and M. I. Podgoretskii. 15(2), 219–23 (Aug. 1972); CPM-7210C1480
- Two Interacting Particles in a Potential Well (T)—A. B. Migdal. 16(2), 238–41 (Feb. 1973); CPM-7304E0341

2.60.15. Resonances in Reactions and Scattering

- Peripheral Model for a Stripping Reaction to a Resonant State (T)—P. O. Dzhamalov, E. I. Dolinskii and A. M. Mukhamedzhanov. 15(2), 147–53 (Aug. 1972); CPM-7210C1408
- Neutron Resonances of Sm Isotopes (E)—E. N. Karzhavina and A. B. Popov. 15(3), 225–7 (Sep. 1972); CPM-7211A1854
- Oscillations of a Fermi Liquid Drop and Giant Resonance in Medium and Heavy Nuclei (T)—I. A. Akhiezer, B. I. Barts and V. T. Lazurik-El'stufin. 15(5), 484–6 (Nov. 1972); CPM-7302E0010
- Nature of the Intermediate Structure of Dipole Analog Resonances (T)—F. A. Zhivopistsev and K. F. Shitikova. 16(1), 21–4 (Jan. 1973); CPM-7304E0125
- Bound and Decaying States in the Theory of Resonance Nuclear Reactions (T)—A. A. Luk'yanov. 16(1), 45–9 (Jan. 1973); CPM-7304E0149

2.60.18. Polarization, Polarized Beams and Targets

- Polarization Effects in $(p, 2p)$ Reaction (T)—V. M. Kolybasov and N. Ya. Smorodinskaya. 15(3), 269–72 (Sep. 1972); CPM-7211A1898

Proton Polarization in Coulomb Stripping Reactions (T)—I. A.

- Gubkin. 15(5), 513–4 (Nov. 1972); CPM-7302E0039
- Polarization Phenomena in Direct Reactions with Simple Diagrams Being Taken into Account (T)—I. Ots. 15(5), 515–9 (Nov. 1972); CPM-7302E0041
- Dependence of Polarization Effects in Direct Nuclear Reactions on the Total Angular Momentum of an Exchanged Particle (T)—V. M. Kolybasov and V. A. Khangulyan. 15(5), 520–2 (Nov. 1972); CPM-7302E0046
- Study of Cl^{37} Excited States by Elastic Scattering of Polarized Protons by S^{32} (E)—I. D. Lopatko, V. I. Borovlev, G. B. Andreev and R. P. Slabospitskii. 16(2), 127–8 (Feb. 1973); CPM-7304E0230
- Polarization of 1000-MeV Protons Scattered by Be, C, Al, and Pb Nuclei (E)—V. G. Vovchenko, A. A. Zhdanov, V. M. Zheleznyakov, O. Ya. Fedorov and A. V. Shvedchikov. 16(6), 628–30 (Jun. 1973); CPM-7310E1476

2.60.20. Nuclear Reactions and Scattering Involving only Few-Nucleon Systems ($A \leq 4$)

- Analysis of the Proton Spectrum from the $\text{D}(n,p)2n$ Reaction (E)—B. G. Skorodumov, M. P. Gol'dberg and Yu. N. Talanin. 15(3), 234–8 (Sep. 1972); CPM-7211A1863
- Study of (γ, T) Reactions in Nuclei with Bremsstrahlung Energies up to 1200 MeV (E)—Yu. P. Antuf'ev, V. L. Agranovich, V. B. Ganenko, V. S. Kuz'menko, I. I. Miroshnichenko, P. V. Sorokin and S. V. Shalatskii. 15(4), 357–60 (Oct. 1972); CPM-7212D1902
- Scattering of High-Energy Electrons by H^3 and He^3 Nuclei (T)—A. G. Sitenko, I. V. Kozlovskii and V. K. Tartakovskii. 15(4), 406–9 (Oct. 1972); CPM-7212D1951
- Photodisintegration of He^4 into Two Deuterons (E)—Yu. M. Arkatov, P. I. Vatsat, V. I. Voloshchuk, I. M. Prokhorets, A. F. Khodyachikh and V. I. Chmil. 16(1), 6–8 (Jan. 1973); CPM-7304E0110
- Two-Particle Electrodissintegration of He^3 (T)—I. V. Kozlovskii, V. K. Tartakovskii and A. D. Foursat. 16(3), 277–81 (Mar. 1973); CPM-7306D0373
- Analysis of Elastic Electron Scattering on Light Nuclei on the Basis of Symmetrized Fermi-Density Distribution (E/T)—Yu. N. Eldyshev, V. N. Lukyanov and Yu. S. Pol. 16(3), 282–6 (Mar. 1973); CPM-7306D0378
- Two-Photon Exchange in Large-Angle Scattering of High-Energy Electrons by Light Nuclei (T)—V. N. Boitsov, L. A. Kondratyuk and V. B. Kopeliovich. 16(3), 287–91 (Mar. 1973); CPM-7306D0383

2.60.25. Photonuclear Reactions and Scattering ($A \geq 5$)

- Influence of the Fractional Parentage Structure of the Ground State on the Photodisintegration of Light Nuclei (T)—N. G. Goncharova. 15(2), 137–40 (Aug. 1972); CPM-7210C1398
- Noncoherent Photoproduction of Vector Mesons on Nuclei at Large Momentum Transfers (T)—S. R. Gevorkyan and A. V. Tarasov. 15(2), 141–2 (Aug. 1972); CPM-7210C1402
- Theory of (γ, N) Reactions at Energies Above the Pion Production Threshold (T)—I. A. Akheizer and B. I. Barts. 15(2), 143–6 (Aug. 1972); CPM-7210C1404
- Differential Cross Sections and Angular Distributions of γ Rays from the $(n, n'\gamma)$ Reaction on Pr^{141} and Ho^{165} (E)—E. A. Andreev, S. P. Sit'ko and V. A. Shevchenko. 15(5), 479–81 (Nov. 1972); CPM-7302E0005
- Measurement of the Excitation Energy of the Spontaneously Fissioning Isomer $\text{Pu}^{239}(\gamma, n)$ (E)—Yu. P. Gangrskii, V. N. Markov, I. F. Kharisov and Yu. M. Tsipenyuk. 16(2), 151–4 (Feb. 1973); CPM-7304E0254
- Cascade Curves and Fluctuations of Average Characteristics of the Development of Showers Produced by 1600-MeV γ Quanta in Liquid Xenon (E)—B. Slowinski, Z. Strugalski and W. Hubert. 16(4), 410–1 (Apr. 1973); CPM-7309D1126

Photoproduction of Single π^+ Mesons on Nuclei at $E = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, É. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412-6 (Apr. 1973); CPM-7309D1128

Photoproduction of Electron-Positron Pairs (T)—V. G. Zima. 16(5), 580-3 (May 1973); CPM-7309D1296

2.60.30. Nuclear Reactions Induced by Leptons ($A \geq 5$)

Dependence of the Electro-Excitation Cross Section of Some Light Nuclei on the Choice of the Coupling Scheme (T)—V. K. Tartakovskii and A. V. Fursaev. 15(1), 31-3 (Jul. 1972); CPM-7209C0983

Investigation of Underground Nuclear Interactions of Cosmic Ray Muons (E)—I. B. Bezrukov, V. I. Beresnev, G. T. Zatsepin, M. I. Nyunin, O. G. Ryazhskaya and L. N. Stepanets. 15(2), 176-83 (Aug. 1972); CPM-7210C1437

Inelastic Scattering of Electrons by Protons and Li^6 Nuclei (E)—Yu. I. Titov and E. V. Stepula. 15(4), 361-4 (Oct. 1972); CPM-7212D1906

Probability of (μ^-, ν) Process on La^{139} and Pb^{208} Nuclei (E)—G. G. Bunatyan, L. Vil'gel'mova, V. S. Evseev, L. N. Nikityuk, V. N. Pokrovskii, V. N. Rybakov and I. A. Yutlandov. 15(5), 526-7 (Nov. 1972); CPM-7302E0052

Generation and Interaction of Muons with Energies $E_\mu \geq 10^{12}$ eV (E)—G. B. Khristiansen, O. V. Vedenev and Yu. A. Nechin. 15(5), 538-42 (Nov. 1972); CPM-7302E0064

Cross Sections and Spectra of Particles Appearing in Processes with the Participation of Reactor Antineutrinos (T)—L. A. Mikaelyan and S. A. Fayans. 15(5), 543-6 (Nov. 1972); CPM-7302E0069

Deep Inelastic Lepton Pair Production in Neutrino Nucleus Scattering (T)—F. M. Lev. 15(5), 556-7 (Nov. 1972); CPM-7302E0082

Excitation of Nuclear Vibrational Levels by Electrons According to the α -Particle Model (T)—A. N. Antonov and E. V. Inopin. 16(2), 182-4 (Feb. 1973); CPM-7304E0285

Analysis of Elastic Electron Scattering on Light Nuclei on the Basis of Symmetrized Fermi-Density Distribution (E/T)—Yu. N. Eldyshev, V. N. Lukyanov and Yu. S. Pol. 16(3), 282-6 (Mar. 1973); CPM-7306D0378

2.60.40. Nucleon-Induced Reactions and Scattering ($A \geq 5$)

2.60.40.10. General

On the Capability of Neutron Spectroscopy for the Study of Highly Excited States (Resonances) (T)—B. G. Solov'ev. 15(4), 410-5 (Oct. 1972); CPM-7212D1955

Mechanism of (n,p) and (n, α) Reactions on Light and Medium Nuclei (E/T)—A. E. Savel'ev, I. K. Averianov and B. M. Dzyuba. 15(4), 416-8 (Oct. 1972); CPM-7212D1961

2.60.40.20. Elastic Proton Scattering

Proton Elastic Scattering by Ca Nuclei in the Energy Region 5.0-6.4 MeV (E)—E. A. Romanovskii, E. I. Sirotnin, T. I. Spasskaya, K. S. Shishkin and V. D. Aleshin. 15(4), 365-6 (Oct. 1972); CPM-7212D1910

Elastic and Inelastic Glauber Scattering of Protons by C^{12} in the α -Particle Model (T)—A. N. Antonov and E. V. Inopin. 16(1), 38-41 (Jan. 1973); CPM-7304E0142

Study of C^{13} Excited States by Elastic Scattering of Polarized Protons by S^{32} (E)—I. D. Lopatko, V. I. Borovlev, G. B. Andreev and R. P. Slabospitskii. 16(2), 127-8 (Feb. 1973); CPM-7304E0230

Polarization of 1000-MeV Protons Scattered by Be, C, Al, and Pb Nuclei (E)—V. G. Vovchenko, A. A. Zhdanov, V. M. Zheleznyakov, O. Ya. Fedorov and A. V. Shvedchikov. 16(6), 628-30 (Jun. 1973); CPM-7310E1476

2.60.40.30. Elastic Neutron Scattering

Excitation of Collective States of Some Medium Nuclei by 14-MeV Neutrons (E)—B. E. Leshchenko, M. E. Gurtovoi, A. S. Kukhlenko and V. I. Strizhak. 15(1), 5-9 (Jul. 1972); CPM-7209C0957

Cross Sections of the Reactions $\text{In}^{113}(\text{n},\text{n}')\text{In}^{113\text{m}}$ and $\text{Rh}^{103}(\text{n},\text{n}')\text{Rh}^{103\text{m}}$ (E)—A. Pazsit and J. Csikai. 15(3), 232-3 (Sep. 1972); CPM-7211A1861

Angular Distributions of 13.7-MeV Neutrons Elastically Scattered by the Isotopes $\text{Pb}^{206,207,208}$ (E)—G. E. Belovitskii, L. N. Kolesnikova and I. M. Frank. 15(4), 369-71 (Oct. 1972); CPM-7212D1914

2.60.40.40. Inelastic Nucleon Scattering and (n,p) and (p,n) Reactions

Excitation of Collective States of Some Medium Nuclei by 14-MeV Neutrons (E)—B. E. Leshchenko, M. E. Gurtovoi, A. S. Kukhlenko and V. I. Strizhak. 15(1), 5-9 (Jul. 1972); CPM-7209C0957

Polarization Effects in (p, 2p) Reaction (T)—V. M. Kolybasov and N. Ya. Smorodinskaya. 15(3), 269-72 (Sep. 1972); CPM-7211A1898

Mn^{54} Levels (E)—V. M. Mishchenko, A. I. Popov and V. E. Storizhko. 15(4), 343-6 (Oct. 1972); CPM-7212D1888

Inelastic Scattering of 13.7 MeV Neutrons by Lead Isotopes (E)—G. E. Belovitskii, L. N. Kolesnikova and I. M. Frank. 15(4), 372-4 (Oct. 1972); CPM-7212D1917

Be^6 and B^9 Levels from (p,n) Reactions (E)—U. R. Arifkhanov, M. Gulyamov, B. I. Islamov and É. Érgashov. 15(6), 610 (Dec. 1972); CPM-7302E0136

Elastic and Inelastic Glauber Scattering of Protons by C^{12} in the α -Particle Model (T)—A. N. Antonov and E. V. Inopin. 16(1), 38-41 (Jan. 1973); CPM-7304E0142

Levels and γ Transitions in Cu^{64} from the Reaction $\text{Ni}^{64}(\text{p},\text{n})\text{Cu}^{64}$ (E)—B. Ya. Guzhevskii, S. N. Abramovich, A. G. Zvenigorodskii and S. V. Trusillo. 16(2), 123-6 (Feb. 1973); CPM-7304E0226

The $\text{O}^{16}(\text{p}, \text{p}\alpha)\text{C}^{12}$ Reaction with 50-MeV Protons (E)—V. V. Boikov, B. V. Vel'berg, I. I. Loshchakov and V. I. Ostroumov. 16(5), 497-8 (May 1973); CPM-7309D1213

2.60.40.50. (N,d), (N,t), (N,He³) and (N, α) Reactions

Cross-Sections for (n,2n) Reactions on Ga, As, Sm, Gd for 14.1 MeV Neutrons (E)—D. V. Viktorov and V. L. Zybabin. 15(6), 608-9 (Dec. 1972); CPM-7302E0134

An Investigation of the (n, α) Reaction Between 4.9-MeV Neutrons and Light Nuclei of a Photographic Emulsion (E)—M. V. Kirichenko and Z. I. Solov'eva. 16(1), 9-10 (Jan. 1973); CPM-7304E0113

Excitation of 0^+ States in Two-Nucleon Transfer Reactions (E)—S. K. Abdulgabova, S. P. Ivanova and N. I. Pyatov. 16(6), 665-9 (Jun. 1973); CPM-7310E1513

2.60.40.60. Radiative Capture

Gamma Radiation in Intermediate Neutron Radioactive Capture (E)—A. F. Gamalii, B. V. Zemtsev, V. B. Ivanov, B. V. Nesterov and L. P. Kham'yanyov. 15(1), 1-4 (Jul. 1972); CPM-7209C0953

Sr^{87} and Zr^{93} Fluorescence after the Capture of Thermal Neutrons (E)—L. V. Groshev, L. I. Govor and A. M. Demidov. 15(4), 347-8 (Oct. 1972); CPM-7212D1892

De-Excitation of Even-Odd Nuclei in the Range $91 \leq N \leq 113$ After Capturing Thermal Neutrons (T)—L. V. Groshev, A. M. Demidov and L. L. Sokolovskii. 16(3), 245-8 (Mar. 1973); CPM-7306D0341

P-Odd Interaction in the $\text{Cd}^{113}(\text{n},\gamma)\text{Cd}^{114}$ Reaction (E)—Yu. G. Abov, M. M. Danilov, O. N. Ermakov, I. L. Karpikhin, V. K. Rissukhin and A. M. Skorniyakov. 16(6), 670-3 (Jun. 1973); CPM-7310E1518

2.60.40.70. Reactions and Scattering at Energies ≥ 100 MeV

Elastic and Inelastic Glauber Scattering of Protons by C^{12} in the α -Particle Model (T)—A. N. Antonov and E. V. Inopin. 16(1), 38-41 (Jan. 1973); CPM-7304E0142

Production of Slow Pions in Interactions between High Energy Particles and Nuclei (E)—N. I. Kostanashvili, G. I. Debedevich, D. S. Nabichvishvili and G. I. Kharashvili. 16(5), 542-5 (May 1973); CPM-7309D1258

2.60.40. Other Topics in Nucleon-Induced Reactions

- The Hauser-Feshbach Method for Many Particle-Nuclear Reactions (T)—A. E. Savel'ev. 15(2), 154-6 (Aug. 1972); CPM-7210C1415
- Coherent Diffraction Production of Pions by Photons in Photoemulsion Nuclei (E)—Sh. Abdurhamilov, S. A. Azimov, N. Sh. Saidkhanov and V. M. Chudakov. 15(2), 169-75 (Aug. 1972); CPM-7210C1430
- Investigation of (p,pd) Reaction on Light Nuclei at 50 MeV (E)—V. V. Boikov, B. V. Vel'berg, I. I. Loshchakov and V. I. Ostrovov. 15(3), 239-40 (Sep. 1972); CPM-7211A1868
- Concerning the Description of Direct (n,n₂) Processes in Some Nuclei (T)—S. N. Ezhov and V. S. Ol'khovskii. 16(2), 185-6 (Feb. 1973); CPM-7304E0288

2.60.50. H²- and H³-Induced Reactions and Scattering (A ≥ 5)

- Peripheral Model for a Stripping Reaction to a Resonant State (T)—P. O. Dzhamalov, E. I. Dolinskii and A. M. Mukhamedzhanov. 15(2), 147-53 (Aug. 1972); CPM-7210C1408
- Structure Factor of Elastic α -Particle and Deuteron Scattering for the Heavy-Particle Stripping Mechanism (T)—T. A. Dmitrieva and I. B. Teplov. 15(3), 266-8 (Sep. 1972); CPM-7211A1895
- Backward Scattering of Deutrons by Light Nuclei (E)—V. A. Matushevich, V. A. Solov'ev and I. P. Chernov. 15(4), 375-6 (Oct. 1972); CPM-7212D1920
- Proton Polarization in Coulomb Stripping Reactions (T)—I. A. Gubkin. 15(5), 513-4 (Nov. 1972); CPM-7302E0039

2.60.60. He³- and α -Induced Reactions and Scattering (A ≥ 5)

2.60.60.20. Elastic and Inelastic Scattering

- Structure Factor of Elastic α -Particle and Deuteron Scattering for the Heavy-Particle Stripping Mechanism (T)—T. A. Dmitrieva and I. B. Teplov. 15(3), 266-8 (Sep. 1972); CPM-7211A1895
- Elastic Scattering of 26.6-MeV α Particles by Light Nuclei (E)—B. I. Kuznetsov, R. E. Ovsyannikova and I. P. Chernov. 15(4), 377-8 (Oct. 1972); CPM-7212D1922
- Influence of Nonlocality on Inelastic α -Particle Scattering (T)—V. V. Tokarevskii. 15(5), 503-7 (Nov. 1972); CPM-7302E0029

2.60.60.40. Two- or Three-Nucleon Transfer Reactions

- Analysis of Proton Angular Distributions in (α ,p) Reactions with the Nuclei Si²⁸, P³¹, Cl³⁵, Fe⁵⁶, Cu⁶³ and Cu⁶⁵ in the Three-Nucleon Stripping Theory (E)—Yu. S. Stryuk and V. V. Tokarevskii. 15(6), 614-7 (Dec. 1972); CPM-7302E0140
- Investigation of the Mirror Reactions (He³, n) and (He³, p) on the C¹² Nucleus (E)—O. D. Brill', A. D. Vongai, K. A. Gridnev and A. R. Faiziev. 16(4), 359-63 (Apr. 1973); CPM-7309D1075
- Excitation of 0⁺ States in Two-Nucleon Transfer Reactions (E)—S. K. Abdulvagabova, S. P. Ivanova and N. I. Pyatov. 16(6), 665-9 (Jun. 1973); CPM-7310E1513

2.60.60.90. Other Topics

- Investigation of Angular Correlations in the Reactions B¹⁰(α ,d₁)C¹²_{4,4,3}, B¹¹(α , t₁)C¹²_{4,4,3}, and C¹²(α , α ₁)C¹²_{4,4,3} (E)—A. A. El-Kamhavi, G. S. Gurevich, N. V. Orlova, A. V. Spasskii, I. B. Teplov and D. A. Shalabaev. 15(3), 241-3 (Sep. 1972); CPM-7211A1870
- Nuclear Reactions Produced by α Particles on Co⁵⁹ Nuclei (E)—O. A. Zhukova, V. I. Kanashovich, S. V. Laptev and G. P. Chursin. 16(2), 134-7 (Feb. 1973); CPM-7304E0237
- Excitation Energies of the Spontaneously Fissile Isomers of Pu²⁴⁰, Cm²⁴¹, and Bk²⁴³ in Reactions with α Particles (E)—I. Vylkov, N. Vylkov, Yu. P. Gangrskii, M. Marinescu, A. A. Pleva, D. Poenaru and I. F. Kharisov. 16(3), 253-6 (Mar. 1973); CPM-7306D0349
- The (α , t) Reaction in Li⁷ and B¹¹ (E)—O. I. Vasil'eva, N. V. Karabanov, V. M. Lebedev, A. V. Spasskii and I. B. Teplov. 16(3), 257-9 (Mar. 1973); CPM-7306D0353

2.60.65. Heavy-Ion-Induced Reactions and Scattering (A ≥ 5)

- Energy Balance in Fission by Heavy Ions (E)—S. A. Karamyan, Tak An Nguyen and K. N. Sharifov. 15(3), 244-8 (Sep. 1972); CPM-7211A1873
- Compound Nucleus Production by Accelerated Xenon Ions (E)—G. N. Flerov, S. A. Karamyan, G. S. Popeko, A. G. Popeko and I. A. Shelaev. 15(6), 618-9 (Dec. 1972); CPM-7302E0144
- Production of Gold Isotopes in Bombardment of U²³⁸ by Xe¹³⁶ Ions (E)—Yu. Ts. Oganessian, O. A. Orlova, Yu. E. Penionzhkevich, K. A. Gavrilov and Kim De Yen. 16(2), 138-9 (Feb. 1973); CPM-7304E0241
- Lifetimes of Excited Compound Nuclei in the Range 79 < Z < 89, Measured by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, F. Normuratov and S. P. Tret'yakova. 16(3), 249-52 (Mar. 1973); CPM-7306D0345
- Angular Distribution of Neutrons Produced by Irradiating Ge, Mo, Ag, and Pr Targets with Heavy Ions of C, O, Ne, and Ar (E)—A. S. Il'inov, S. A. Karamyan, Tak An Nguyen and K. N. Sharifov. 16(3), 260-2 (Mar. 1973); CPM-7306D0356
- Some Peculiarities of Interaction of Ne²⁰ and C¹² Ions with Nuclei at 10-17 MeV/Nucleon (E)—V. M. Nikolaev and V. A. Shchegolev. 16(3), 263-5 (Mar. 1973); CPM-7306D0359
- Angular Distribution and Excitation Functions of the Reactions (N¹⁵, N¹⁶), (N¹⁴, N¹⁶), (N¹⁵, N¹⁷), (N¹⁴, N¹⁷) (E)—A. G. Artyukh, V. V. Volkov, L. Pomorski and J. Tys. 16(5), 499-501 (May 1973); CPM-7309D1215

2.60.70. Meson- and Hyperon-Induced Reactions and Scattering (A ≥ 5)

- Formation of B⁸ in Capture of Stopped π^- Mesons by Nitrogen Nuclei (E)—N. M. Agababyan, Yu. A. Batusov, S. A. Bunyatov, G. P. Gulkanyan, V. M. Sidorov and V. A. Yarba. 15(1), 10-1 (Jul. 1972); CPM-7209C0962
- Production of Fast Helium and Triton Nuclei in an Interaction of High-Energy Pions with Heavy Emulsion Nuclei (E)—A. I. Borisenko, A. P. Kazanskaya, P. V. Morozova, Zh. S. Takibaev and N. S. Titova. 15(4), 419-22 (Oct. 1972); CPM-7212D1964
- Determination of the Charge Distribution Parameters of Ni⁶⁰, Zn⁶⁴, and Zn⁶⁶ by Elastic Electron Scattering (E)—A. S. Litvinenko, N. G. Shevchenko, N. G. Afanas'ev, A. Yu. Buki, G. A. Savitskii, V. M. Khvastunov, A. A. Khomich, I. I. Chkalov and V. P. Likhachev. 15(6), 611-3 (Dec. 1972); CPM-7302E0137
- Excitation Spectrum of Residual Nuclei in (π^- , nn) Reaction (E)—T. I. Kopaleishvili, I. Z. Machabeli and M. Sh. Chachkhunashvili. 15(6), 629-31 (Dec. 1972); CPM-7302E0155
- Coherent Production of Ω^- and Ξ Hyperons on Nuclei and the Determination of Their Spin and Parity (T)—B. Z. Kopeliovich. 16(3), 326-31 (Mar. 1973); CPM-7306D0422

2.60.75. Nuclear Fission

- Prompt Neutrons and Kinetic Energy of Fragments from Spontaneous Fission of Cm²⁴⁴ (E)—I. D. Alkhasov, S. S. Kovalenko, O. I. Kostochkin, L. Z. Malkin, K. A. Petrzhak and V. I. Shpakov. 15(1), 12-6 (Jul. 1972); CPM-7209C0964
- Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of Cf²⁴⁹ (E)—K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kosyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentsev and V. N. Okolovich. 15(1), 17-9 (Jul. 1972); CPM-7209C0969
- Cf²⁵² Fission Cross Section in the Neutron Energy Range 0.16-1.6 MeV (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, V. N. Kosyakov, G. A. Otroschenko, L. V. Chistyakov, V. A. Shigin and V. M. Shubko. 15(1), 20-1 (Jul. 1972); CPM-7209C0972
- Mass Distribution of Products of Long-Range-Particle Fission (T)—V. G. Bogdanov, Z. I. Solov'eva, O. E. Shigaev and V. S. Bychenkov. 15(2), 119-20 (Aug. 1972); CPM-7210C1380
- Photofission and Photofragmentation of Tantalum (E)—V. I. Kasilov, A. V. Mitrofanova, Yu. N. Ranyuk and P. V. Sorokin. 15(3), 228-31 (Sep. 1972); CPM-7211A1857
- Energy Balance in Fission by Heavy Ions (E)—S. A. Karamyan, Tak An Nguyen and K. N. Sharifov. 15(3), 244-8 (Sep. 1972); CPM-7211A1873

- Delayed Fission of Some Neutron-Deficient Nuclei (T)—N. K. Skobelev. 15(3), 249–50 (Sep. 1972); CPM-7211A1878
- Genetic Connection between the Delayed-Neutron Radiation and the Fission Process (T)—B. P. Maksyutenko. 15(3), 251–5 (Sep. 1972); CPM-7211A1880
- Asymmetry of Nuclear Fission with Allowance for Quantum Effects (T)—B. T. Geilikman and O. V. Zimina. 15(3), 256–9 (Sep. 1972); CPM-7211A1885
- Observation of Shadows in the Angular Distributions of Fragments from Photofission of Tantalum, and Evaluation of the Fission Lifetime (E)—N. A. Skakun and N. P. Dikii. 15(3), 341–2 (L) (Sep. 1972); CPM-7211A1970
- Erratum: Mass Distribution of Products of Long-range-particle Fission [9, 427 (1962)] (T)—V. G. Bogdanov, Z. I. Solov'eva, O. E. Shigaev and V. S. Bychenkov. 15(4), 473–4 (Oct. 1972); CPM-7212D2018
- Relative Yields of Xenon Isotopes in Np^{237} and Np^{238} Fission by Neutrons (E)—K. A. Petrzhak, M. G. Pan'yan, V. F. Teplykh and B. M. Aleksandrov. 15(5), 482–3 (Nov. 1972); CPM-7302E0008
- Method for the Calculation of the Nuclear Critical Charge (T)—V. S. Popov. 15(5), 595–600 (Nov. 1972); CPM-7302E0121
- Angular Measurements of γ -Radiation Yield in Ternary Fission of Cf^{252} (E)—O. I. Ivanov. 15(6), 620–1 (Dec. 1972); CPM-7302E0146
- Structure of the One-Particle Spectrum and Energy Dependence of Γ_f/Γ_n (T)—A. V. Ignatyuk, G. N. Smirenkin and A. S. Tishin. 15(6), 622–5 (Dec. 1972); CPM-7302E0148
- Nucleon Pairing and Dependence of the Number of Prompt Neutrons on the Fragment Mass (T)—A. E. Savel'ev, S. V. Zhikhareva and M. A. Savel'eva. 16(1), 11–3 (Jan. 1973); CPM-7304E0115
- Production of Gold Isotopes in Bombardment of U^{238} by Xe^{136} Ions (E)—Yu. Ts. Oganessian, O. A. Orlova, Yu. É. Penionzhkevich, K. A. Gavrilov and Kim De Yen. 16(2), 138–9 (Feb. 1973); CPM-7304E0241
- Po^{210} Fission in $\text{Pb}^{206}(\alpha, f)$ Reaction (E)—M. G. Itkis, K. G. Kuvатов, V. N. Okolovich, G. Ya. Ruskina, G. N. Smirenkin and A. S. Tishin. 16(2), 144–50 (Feb. 1973); CPM-7304E0247
- Measurement of the Excitation Energy of the Spontaneously Fissioning Isomer $\text{Pu}^{239m}(\gamma, n)$ (E)—Yu. P. Gangskii, V. N. Markov, I. F. Kharisov and Yu. M. Tsipenyuk. 16(2), 151–4 (Feb. 1973); CPM-7304E0254
- Search for Fission Isomers in the Radium Region (E)—I. M. Kuks, V. I. Matvienko, Yu. A. Nemilov, Yu. A. Selitskii and V. B. Funschtein. 16(2), 244(L) (Feb. 1973); CPM-7304E0347
- Lifetimes of Excited Compound Nuclei in the Range $79 < Z < 89$, Measured by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, F. Normuratov and S. P. Tret'yakova. 16(3), 249–52 (Mar. 1973); CPM-7306D0345
- Excitation Energies of the Spontaneously Fissile Isomers of Pu^{240} , Cm^{241} , and Bk^{243} in Reactions with α Particles (E)—I. Vylkov, N. Vylkov, Yu. P. Gangskii, M. Marinescu, A. A. Pleve, D. Poenaru and I. F. Kharisov. 16(3), 253–6 (Mar. 1973); CPM-7306D0349
- Influence of Excitation Energy on the Mass and Kinetic Energy Distributions of U^{233} Fission Fragments (E)—A. I. Sergachev, N. P. D'yachenko, A. M. Kovalev and B. D. Kuz'minov. 16(3), 266–9 (Mar. 1973); CPM-7306D0362
- Fission of U^{235} by Thermal Neutrons (E)—V. P. Zakharova, D. K. Ryzanov, B. G. Basova, A. D. Rabinovich and V. A. Kostylev. 16(4), 364–71 (Apr. 1973); CPM-7309D1080
- Angular Distributions of Fragments in Neutron-Induced Fission of Cf^{249} (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, G. A. Otroshchenko and V. A. Shigin. 16(4), 372–3 (Apr. 1973); CPM-7309D1088
- Searches for the Spontaneously Fissioning Isomer Pu^{240m} in the Thermal-Neutron Capture Reaction (E)—G. V. Val'skii, O. M. Mrachkovskii, G. A. Petrov and Yu. S. Pleva. 16(4), 374–5 (Apr. 1973); CPM-7309D1090
- Anisotropy in the Angular Distribution of Fragments from Photofission at High Energies (E)—N. A. Demekhina, V. I. Kasilov, A. V. Mitrofanova, Yu. N. Ranyuk and P. V. Sorokin. 16(5), 502–4 (May 1973); CPM-7309D1218
- Cross Sections for Neutron-Induced Fission of Th^{228} (E)—P. E. Vorotnikov, Z. S. Gladkikh, A. V. Davydov, S. M. Dubrovina, G. A. Otroshchenko, E. S. Pal'shin, V. A. Shigin and V. M. Shubko. 16(5), 505–6 (May 1973); CPM-7309D1221
- Fission Barriers of Odd Nuclei (T)—G. D. Adeev and P. A. Cherdantsev. 16(5), 507–10 (May 1973); CPM-7309D1223
- Study of Phase Transition in the Density of the Excited States of Even-Even Pb Nuclei in the (α, f) Reaction (E)—V. N. Okolovich, M. G. Itkis, K. G. Kuvатов and G. N. Smirenkin. 16(6), 631–3 (Jun. 1973); CPM-7310E1479
- Cf^{252} Fission Neutrons (E)—M. V. Blinov, N. M. Kazarinov and I. T. Krisyuk. 16(6), 634–7 (Jun. 1973); CPM-7310E1482
- Energy Dependence of $\bar{\nu}$ in the Fission of U^{235} by Fast Neutrons (E)—M. V. Savin, Yu. A. Khokhlov, A. E. Savel'ev and I. N. Paramonova. 16(6), 638–40 (Jun. 1973); CPM-7310E1486
- Average Number of Prompt Neutrons in the Spontaneous Fission of Fm^{256} (E)—M. Dakovskii, Yu. A. Lazarev and Yu. Ts. Oganessian. 16(6), 641–2 (Jun. 1973); CPM-7310E1489
- ## 2.60.90. Other Topics in Nuclear Reactions and Scattering
- Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674–7 (Jun. 1973); CPM-7310E1522
- ## 2.70. PROPERTIES OF SPECIFIC NUCLEI
- ### 2.70.20. $6 \leq A \leq 19$
- Formation of B^{π} in Capture of Stopped π^{-} Mesons by Nitrogen Nuclei (E)—N. M. Agababyan, Yu. A. Batusov, S. A. Bunyatov, G. P. Gulkanyan, V. M. Sidorov and V. A. Yarba. 15(1), 10–1 (Jul. 1972); CPM-7209C0962
- Investigation of Angular Correlations in the Reactions $\text{B}^{10}(\alpha, d_1)\text{C}^{12}_{4,4,3}$, $\text{B}^{11}(\alpha, t_1)\text{C}^{12}_{4,4,3}$, and $\text{C}^{12}(\alpha, \alpha_1)\text{C}^{12}_{4,4,3}$ (E)—A. A. El-Kamhavi, G. S. Gurevich, N. V. Orlova, A. V. Spasskii, I. B. Teplov and D. A. Shalabaev. 15(3), 241–3 (Sep. 1972); CPM-7211A1870
- Inelastic Scattering of Electrons by Protons and Li^6 Nuclei (E)—Yu. I. Titov and E. V. Stepula. 15(4), 361–4 (Oct. 1972); CPM-7212D1906
- Influence of Majorana Forces on the Properties of p-Shell Hypernuclei (T)—A. B. Kochetov and B. A. Khrylin. 16(1), 25–6 (Jan. 1973); CPM-7304E0129
- Investigation of the Cluster Structure of the Be^8 Nucleus (T)—I. Sh. Vashakidze and T. R. Dzhalaganiya. 16(4), 382–5 (Apr. 1973); CPM-7309D1098
- Form Factors and Transition Densities of the Quadrupole and Octupole Vibrations of the C^{12} Nucleus (T)—I. S. Gul'karov. 16(4), 386–90 (Apr. 1973); CPM-7309D1102
- Generalized Method of Harmonic Polynomials (T)—A. M. Gorbатов. 16(4), 391–4 (Apr. 1973); CPM-7309D1107
- The Cluster Model and the Structure of the C^{12} Nucleus (T)—I. Sh. Vashakidze and T. R. Dzhalaganiya. 16(5), 519–21 (May 1973); CPM-7309D1235
- ### 2.70.30. $20 \leq A \leq 38$
- Correlation of α Particles and γ Rays from the Reaction $\text{Al}^{27}(p, \alpha\gamma)\text{Mg}^{24}$ for 6.40-MeV Protons (E)—S. S. Vasil'ev, A. S. Dem'yanova, V. S. Zazulin, S. D. Kostyuchenkov, T. N. Mikhaleva, S. F. Nikiyaki and D. L. Chupronov. 15(4), 367–8 (Oct. 1972); CPM-7212D1912
- Spectra of γ Rays Produced in Si^{30} and S^{34} Capture of Thermal Neutrons (E)—Dzh. D. Dzhafer, A. A. Abdullah, N. Kh. Al-Kuraishi, M. S. Al'vash, M. A. Khalil and A. M. Demidov. 15(6), 605–7 (Dec. 1972); CPM-7302E0131
- Radiation of p-Levels of Even-Odd Nuclei with $21 \leq A \leq 41$ in Cascade Emission Following Capture of Thermal Neutrons (E)—A. M. Demidov, J. D. Jafar, M. A. Khalil and F. A. Hussein. 16(1), 1–5 (Jan. 1973); CPM-7304E0105
- Study of Cl^{33} Excited States by Elastic Scattering of Polarized Protons by S^{32} (E)—I. D. Lopatko, V. I. Borovlev, G. B. Andreev and R. P. Slabospitskii. 16(2), 127–8 (Feb. 1973); CPM-7304E0230
- ### 2.70.40. $39 \leq A \leq 58$
- Mn^{54} Levels (E)—V. M. Mishchenko, A. I. Popov and V. E. Storizhko. 15(4), 343–6 (Oct. 1972); CPM-7212D1888

- Measurements of Atomic Masses in the Region from Titanium to Iron (E)—R. A. Demirkhanov, V. V. Dorokhov and M. I. Dzikuya. 15 (5), 475–8 (Nov. 1972); CPM-7302E0001
- Nonconservation of P-Parity in γ Decay of K^{41} (E)—B. M. Lobashov, V. A. Nazarenko, N. A. Bozovoi, L. M. Smotriskii, G. I. Kharkevich and V. A. Knyaz'kov. 15(6), 632–5 (Dec. 1972); CPM-7302E0158
- Radiation of p-Levels of Even-Odd Nuclei with $21 \leq A \leq 41$ in Cascade Emission Following Capture of Thermal Neutrons (E)—A. M. Demidov, J. D. Jafar, M. A. Khalil and F. A. Hussein. 16 (1), 1–5 (Jan. 1973); CPM-7304E0105

2.70.50. $59 \leq A \leq 89$

- Sr^{87} and Zr^{93} Fluorescence after the Capture of Thermal Neutrons (E)—L. V. Groshev, L. I. Govor and A. M. Demidov. 15(4), 347–8 (Oct. 1972); CPM-7212D1892
- Influence of Nonlocality on Inelastic α -Particle Scattering (T)—V. V. Tokarevskii. 15(5), 503–7 (Nov. 1972); CPM-7302E0029
- Levels and γ Transitions in Cu^{64} from the Reaction $Ni^{64}(p,n\gamma)Cu^{64}$ (E)—B. Ya. Guzhevskii, S. N. Abramovich, A. G. Zvenigorodskii and S. V. Trusillo. 16(2), 123–6 (Feb. 1973); CPM-7304E0226
- Nuclear Reactions Produced by α Particles on Co^{59} Nuclei (E)—O. A. Zhukova, V. I. Kanashovich, S. V. Laptev and G. P. Chursin. 16(2), 134–7 (Feb. 1973); CPM-7304E0237

2.70.60. $90 \leq A \leq 149$

- Neutron Resonances of Sm Isotopes (E)—E. N. Karzhavina and A. B. Popov. 15(3), 225–7 (Sep. 1972); CPM-7211A1854
- Cross Sections of the Reactions $^{113}(n,n')^{113m}$ and $Rh^{103}(n,n')Rh^{103m}$ (E)—A. Pazsit and J. Csikai. 15(3), 232–3 (Sep. 1972); CPM-7211A1861
- Ratios of the Internal Conversion Coefficients for M4 Transitions in the Nuclei $Te^{121,123,125,127,129}$ (E)—R. A. Kalinauskas, K. V. Makaryunas and R. I. Davidonis. 15(4), 350–1 (Oct. 1972); CPM-7212D1895
- Internal Bremsstrahlung Accompanying a Unique β Transition of Cs^{137} (E)—I. S. Batkin and Yu. G. Smirnov. 16(4), 405–6 (Apr. 1973); CPM-7309D1121

2.70.80. $190 \leq A \leq 219$

- Use of the Perturbed Angle ϵ_{casc} Correlation to Measure the Hg^{197} 133-keV State g-Factor (E)—N. D. Kornienko, B. G. Kul'Chinskii, A. I. Levon and O. F. Nemets. 15(4), 353–6 (Oct. 1972); CPM-7212D1898
- Angular Distributions of 13.7-MeV Neutrons Elastically Scattered by the Isotopes $Pb^{206,207,208}$ (E)—G. E. Belovitskii, L. N. Kolesnikova and I. M. Frank. 15(4), 369–71 (Oct. 1972); CPM-7212D1914
- Inelastic Scattering of 13.7 MeV Neutrons by Lead Isotopes (E)—G. E. Belovitskii, L. N. Kolesnikova and I. M. Frank. 15(4), 372–4 (Oct. 1972); CPM-7212D1917
- Study of Phase Transition in the Density of the Excited States of Even-Even Pb Nuclei in the (α, f) Reaction (E)—V. N. Okolovich, M. G. Itkis, K. G. Kuvatov and G. N. Smirenkin. 16 (6), 631–3 (Jun. 1973); CPM-7310E1479

2.70.90. $220 \leq A$

- Delayed Fission of Some Neutron-Deficient Nuclei (T)—N. K. Skobelev. 15(3), 249–50 (Sep. 1972); CPM-7211A1878
- Splitting of the 5793 keV Doublet in the Ac^{225} α Spectrum (E)—N. A. Golovkov, B. S. Dzhelepov, R. B. Ivanov, M. A. Mikhailova and V. G. Chumin. 15(4), 349 (Oct. 1972); CPM-7212D1894
- Nucleon Pairing and Dependence of the Number of Prompt Neutrons on the Fragment Mass (T)—A. E. Savel'ev, S. V. Zhikhareva and M. A. Savel'eva. 16(1), 11–3 (Jan. 1973); CPM-7304E0115
- Excitation Energies of the Spontaneously Fissile Isomers of Pu^{240} , Cm^{241} , and Bk^{243} in Reactions with α Particles (E)—I. Vylkov, N. Vylkov, Yu. P. Gangrskii, M. Marinescu, A. A. Pleve, D. Poenaru and I. F. Kharisov. 16(3), 253–6 (Mar. 1973); CPM-7306D0349
- Cf^{252} Fission Neutrons (E)—M. V. Blinov, N. M. Kazarinov and I. T. Krisyuk. 16(6), 634–7 (Jun. 1973); CPM-7310E1482
- Energy Dependence of $\bar{\nu}$ in the Fission of U^{235} by Fast Neutrons (E)—M. V. Savin, Yu. A. Khokhlov, A. E. Savel'ev and I. N. Paramonova. 16(6), 638–40 (Jun. 1973); CPM-7310E1486

- Average Number of Prompt Neutrons in the Spontaneous Fission of Fm^{256} (E)—M. Dakovski, Yu. A. Lazarev and Yu. Ts. Oganessian. 16(6), 641–2 (Jun. 1973); CPM-7310E1489

2.70.95. Others

- Magnetic Moments of Three-Particle Nuclei (T)—N. B. Krupennikova. 15(3), 260–1 (Sep. 1972); CPM-7211A1889
- De-Excitation of Even-Odd Nuclei in the Range $91 \leq N \leq 113$ After Capturing Thermal Neutrons (T)—L. V. Groshev, A. M. Demidov and L. L. Sokolovskii. 16(3), 245–8 (Mar. 1973); CPM-7306D0341
- Lifetimes of the Rotational Levels of Yb^{164} Measured by the Doppler Effect in the Recoil Nuclei (E)—B. Bochev, S. A. Karamyan, T. Kutsarova, Ya. Ukhlin, E. Nadzhakov, Ts. Venkova and R. Kalpakchieva. 16(4), 355–8 (Apr. 1973); CPM-7309D1071

2.80. NUCLEAR ENGINEERING AND NUCLEAR POWER STUDIES

- Cross Sections and Spectra of Particles Appearing in Processes with the Participation of Reactor Antineutrinos (T)—L. A. Mikaelyan and S. A. Fayans. 15(5), 543–6 (Nov. 1972); CPM-7302E0069

2.90. EXPERIMENTAL METHODS AND INSTRUMENTATION FOR ELEMENTARY PARTICLE AND NUCLEAR PHYSICS

- Possibilities of Resonance Interferometers (T)—G. I. Kopylov. 15(1), 103–7 (Jul. 1972); CPM-7209C1055
- The Relativistic Rise in Ionization in Gas Track Detectors (T)—G. I. Merzon. 15(2), 157–60 (Aug. 1972); CPM-7210C1418
- Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnui, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674–7 (Jun. 1973); CPM-7310E1522

3.10. ATOMS

- Multipole Expansion of Lamb Shift (T)—Ya. I. Granovskii. 15(2), 192–4 (Aug. 1972); CPM-7210C1453
- Measurements of Atomic Masses in the Region from Titanium to Iron (E)—R. A. Demirkhanov, V. V. Dorokhov and M. I. Dzikuya. 15 (5), 475–8 (Nov. 1972); CPM-7302E0001
- Dependence of the Depolarization of Negative Muons on the Molecular Weight and Temperature in Organic Compounds (E)—A. A. Dzhuzaev, V. S. Evseev, Yu. V. Obukhov and V. S. Roganov. 16(1), 60–3 (Jan. 1973); CPM-7304E0164
- Pion Polarizability, Virtual Compton Effect, and the Decay $\pi \rightarrow e \nu \gamma$ (T)—M. V. Terent'ev. 16(1), 87–93 (Jan. 1973); CPM-7304E0191

3.20. MOLECULES

- Influence of Single Scattering Processes on the Horizontal Fluxes of Cosmic Muons in Water (T)—A. T. Matachun, Yu. A. Trubkin and V. M. Fedorov. 16(2), 191–3 (Feb. 1973); CPM-7304E0294

3.30. MACROMOLECULES AND POLYMERS

- Depolarization of Negative Muons in Monomeric and Polymeric Organic Compounds (T)—A. A. Dzhuzaev, V. S. Evseev, Yu. V. Obukhov, V. S. Roganov and N. I. Kholodov. 16(1), 64–6 (Jan. 1973); CPM-7304E0168

3.40. PHYSICAL CHEMISTRY

- Dependence of the Depolarization of Negative Muons on the Molecular Weight and Temperature in Organic Compounds (E)—A. A. Dzhuzaev, V. S. Evseev, Yu. V. Obukhov and V. S. Roganov. 16(1), 60–3 (Jan. 1973); CPM-7304E0164
- Depolarization of Negative Muons in Monomeric and Polymeric Organic Compounds (T)—A. A. Dzhuzaev, V. S. Evseev, Yu. V. Obukhov, V. S. Roganov and N. I. Kholodov. 16(1), 64–6 (Jan. 1973); CPM-7304E0168

4.20. STRUCTURE AND PROPERTIES OF FLUIDS

- The Relativistic Rise in Ionization in Gas Track Detectors (T)—G. I. Merzon. 15(2), 157–60 (Aug. 1972); CPM-7210C1418
- Dependence of the Depolarization of Negative Muons on the Molecular Weight and Temperature in Organic Compounds (E)—A. A. Dzhuraev, V. S. Evseev, Yu. V. Obukhov and V. S. Roganov. 16(1), 60–3 (Jan. 1973); CPM-7304E0164
- Influence of Single Scattering Processes on the Horizontal Fluxes of Cosmic Muons in Water (T)—A. T. Matachun, Yu. A. Trubkin and V. M. Fedorov. 16(2), 191–3 (Feb. 1973); CPM-7304E0294

5.70. PASSAGE OF PARTICLES AND RADIATION THROUGH SOLIDS

- Optical Radiation Excited by Nonrelativistic Charged Particles at Metal Surfaces (E)—A. P. Kobzev, S. Michalak, E. Rutkowski and I. M. Frank. 15(2), 184–8 (Aug. 1972); CPM-7210C1445
- Ionization Loss of High-Energy Electrons (E)—A. S. Belousov, E. I. Malinovskii, S. V. Rusakov and P. N. Shareiko. 16(2), 189–90 (Feb. 1973); CPM-7304E0292
- Calculation of Electron-Proton Showers Produced in Lead by Electrons and γ Rays with Energies from 50 to 400 MeV (T)—M. Ya. Borkovskii and S. P. Kruglov. 16(2), 194–8 (Feb. 1973); CPM-7304E0297

5.80. PHYSICS OF SURFACES, THIN FILMS, INTERFACES AND SMALL PARTICLES

- Optical Radiation Excited by Nonrelativistic Charged Particles at Metal Surfaces (E)—A. P. Kobzev, S. Michalak, E. Rutkowski and I. M. Frank. 15(2), 184–8 (Aug. 1972); CPM-7210C1445

9.10. ERRATA

- Erratum: "Direct Production of Lepton Pairs by a Neutrino Beam in the Electromagnetic Field of a Nucleus [3, 497 (4)] (T)—M. S. Marinov, Yu. P. Nikitin, Yu. P. Orevkov and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Erratum: Neutral Currents and the Limit of Validity of the Theory of Weak Interactions [6, 603 (4)] (T)—B. L. Ioffe and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Erratum: Angular and Momentum Distributions of μ^- Mesons in the Reaction $\nu + Z \rightarrow \mu^- + W^+ + Z$ [14, 235 (2)] (T)—E. D. Zhizhin, Yu. P. Nikitin, G. V. Rozhnov and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Erratum: Angular and Momentum Distributions of μ^+ Mesons Resulting from the Decay of the W^+ Boson in the Reaction $\nu + Z \rightarrow \mu^+ + Z + W^+$ [14, 236 (2)] (T)—A. V. Berkov, E. D. Zhizhin, Yu. P. Nikitin and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Erratum: Higher-order Effects in External Field: Pair Production by a Particle [14, 572 (5)] (T)—V. N. Baier, V. M. Katkov and V. M. Strakhovenko. 15(1), 118 (Jul. 1972); CPM-7209C1070

Papers are arranged in ascending page number order. The symbols after the title of the paper indicate the general emphasis of the paper: (T)—Theoretical, (E)—Experimental, (T/E)—Experimental and Theoretical, (R)—Review. References with (L) are Letters.

A

- Abdullah, A. A.**—Spectra of γ Rays Produced in Si^{30} and S^{34} Capture of Thermal Neutrons (E)—Dzh. D. Dzhabar, A. A. Abdullah, N. Kh. Al-Kuraishi, M. S. Al'vash, M. A. Khalil and A. M. Demidov. 15(6), 605-7 (Dec. 1972); CPM-7302E0131
- Abdulvagabova, S. K.**—Excitation of 0^+ States in Two-Nucleon Transfer Reactions (E)—S. K. Abdulvagabova, S. P. Ivanova and N. I. Pyatov. 16(6), 665-9 (Jun. 1973); CPM-7310E1513
- Abduzhamilov, Sh.**—Coherent Diffraction Production of Pions by Photons in Photoemulsion Nuclei (E)—Sh. Abduzhamilov, S. A. Azimov, N. Sh. Saidkhanov and V. M. Chudakov. 15(2), 169-75 (Aug. 1972); CPM-7210C1430
- Abov, Yu. G.**—P-Odd Interaction in the $\text{Cd}^{113}(\text{n},\gamma)\text{Cd}^{114}$ Reaction (E)—Yu. G. Abov, M. M. Danilov, O. N. Ermakov, I. L. Karpikhin, V. K. Rissukhin and A. M. Skorniyakov. 16(6), 670-3 (Jun. 1973); CPM-7310E1518
- Abramov, S. A.**—Realization of the Physical Basis for $\text{Su}(3)$ and the Probabilities of E1 Transitions in the $\text{Su}(3)$ Formalism (T)—G. N. Afanas'ev, S. A. Abramov and P. P. Raichev. 16(1), 27-30 (Jan. 1973); CPM-7304E0131
- Abramovich, S. N.**—Levels and γ Transitions in Cu^{64} from the Reaction $\text{Ni}^{64}(\text{p},\text{n})\text{Cu}^{64}$ (E)—B. Ya. Guzhevskii, S. N. Abramovich, A. G. Zvenigorodskii and S. V. Trusillo. 16(2), 123-6 (Feb. 1973); CPM-7304E0226
- Abramyan, L. O.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412-6 (Apr. 1973); CPM-7309D1128
- Adamyan, F. V.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412-6 (Apr. 1973); CPM-7309D1128
- Adeev, G. D.**—Fission Barriers of Odd Nuclei (T)—G. D. Adeev and P. A. Cherdantsev. 16(5), 507-10 (May 1973); CPM-7309D1223
- Afanas'ev, G. N.**—Realization of the Physical Basis for $\text{Su}(3)$ and the Probabilities of E1 Transitions in the $\text{Su}(3)$ Formalism (T)—G. N. Afanas'ev, S. A. Abramov and P. P. Raichev. 16(1), 27-30 (Jan. 1973); CPM-7304E0131
- Afanas'ev, N. G.**—Electroproduction of Pions from Protons at Threshold for Momentum Transfers up to 10.4 F^{-2} (E/T)—Yu. I. Titov, N. F. Severin, N. G. Afanas'ev, R. V. Akhmerov, S. A. Byvalin, E. V. Stepula and E. M. Smelov. 15(3), 273-5 (Sep. 1972); CPM-7211A1902
- Determination of the Charge Distribution Parameters of Ni^{60} , Zn^{64} , and Zn^{66} by Elastic Electron Scattering (E)—A. S. Litvinenko, N. G. Shevchenko, N. G. Afanas'ev, A. Yu. Buki, G. A. Savitskii, V. M. Khvastunov, A. A. Khomich, I. I. Chkalov and V. P. Likhachev. 15(6), 611-3 (Dec. 1972); CPM-7302E0137
- Afomian, A. A.**—Consequences of Broken $\text{SU}(3) \times \text{SU}(3)$ Symmetry for Low Energy πK Scattering (T)—A. A. Afomian. 15(1), 71-3 (Jul. 1972); CPM-7209C1023
- Afonin, A. A.**—K-Matrix Model of Low-Energy πK Scattering (T)—A. A. Afonin. 15(3), 327-30 (Sep. 1972); CPM-7211A1956
- Agababyan, N. M.**—Formation of B^8 in Capture of Stopped π^- Mesons by Nitrogen Nuclei (E)—N. M. Agababyan, Yu. A. Batusov, S. A. Bunyatov, G. P. Gulkanyan, V. M. Sidorov and V. A. Yarbba. 15(1), 10-1 (Jul. 1972); CPM-7209C0962
- Agan'yants, A. O.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412-6 (Apr. 1973); CPM-7309D1128
- Agranovich, V. L.**—Study of (γ, T) Reactions in Nuclei with Bremsstrahlung Energies up to 1200 MeV (E)—Yu. P. Antuf'ev, V. L. Agranovich, V. B. Ganenko, V. S. Kuz'menko, I. I. Miroshnichenko, P. V. Sorokin and S. V. Shalatskii. 15(4), 357-60 (Oct. 1972); CPM-7212D1902
- Akheizer, I. A.**—Theory of (γ, N) Reactions at Energies Above the Pion Production Threshold (T)—I. A. Akheizer and B. I. Barts. 15(2), 143-6 (Aug. 1972); CPM-7210C1404
- Oscillations of a Fermi Liquid Drop and Giant Resonance in Medium and Heavy Nuclei (T)—I. A. Akheizer, B. I. Barts and V. T. Lazurik-El'tsufin. 15(5), 484-6 (Nov. 1972); CPM-7302E0010
- Akhmerov, R. V.**—Electroproduction of Pions from Protons at Threshold for Momentum Transfers up to 10.4 F^{-2} (E/T)—Yu. I. Titov, N. F. Severin, N. G. Afanas'ev, R. V. Akhmerov, S. A. Byvalin, E. V. Stepula and E. M. Smelov. 15(3), 273-5 (Sep. 1972); CPM-7211A1902
- Akulov, V. P.**—U(4) Symmetry of Leptons and Quarks (T)—V. P. Akulov and D. V. Volkov. 15(4), 461-3 (Oct. 1972); CPM-7212D2006
- Aleksandrov, B. M.**—Relative Yields of Xenon Isotopes in Np^{237} and Np^{238} Fission by Neutrons (E)—K. A. Petrzhak, M. G. Pan'yan, V. F. Teplykh and B. M. Aleksandrov. 15(5), 482-3 (Nov. 1972); CPM-7302E0008
- Aleshin, V. D.**—Proton Elastic Scattering by Ca Nuclei in the Energy Region 5.0-6.4 MeV (E)—E. A. Romanovskii, E. I. Sirotin, T. I. Spasskaya, K. S. Shishkin and V. D. Aleshin. 15(4), 365-6 (Oct. 1972); CPM-7212D1910
- Alkhazov, I. D.**—Prompt Neutrons and Kinetic Energy of Fragments from Spontaneous Fission of Cm^{244} (E)—I. D. Alkhazov, S. S. Kovalenko, O. I. Kostochkin, L. Z. Malkin, K. A. Petrzhak and V. I. Shpakov. 15(1), 12-6 (Jul. 1972); CPM-7209C0964
- Al-Kuraishi, N. Kh.**—Spectra of γ Rays Produced in Si^{30} and S^{34} Capture of Thermal Neutrons (E)—Dzh. D. Dzhabar, A. A. Abdullah, N. Kh. Al-Kuraishi, M. S. Al'vash, M. A. Khalil and A. M. Demidov. 15(6), 605-7 (Dec. 1972); CPM-7302E0131
- Al'vash, M. S.**—Spectra of γ Rays Produced in Si^{30} and S^{34} Capture of Thermal Neutrons (E)—Dzh. D. Dzhabar, A. A. Abdullah, N. Kh. Al-Kuraishi, M. S. Al'vash, M. A. Khalil and A. M. Demidov. 15(6), 605-7 (Dec. 1972); CPM-7302E0131
- Amov, B.**—Investigation of the Decay of T^{194} (E)—B. Amov, T. Vandlik, J. Vandlik, Ts. Vylov, N. G. Zaitseva, I. Penev and H. Tyrroff. 16(5), 487-90 (May 1973); CPM-7309D1203
- Andreev, E. A.**—Differential Cross Sections and Angular Distributions of γ Rays from the $(\text{n}, \text{n}'\gamma)$ Reaction on Pr^{141} and Ho^{165} (E)—E. A. Andreev, S. P. Sit'ko and V. A. Shevchenko. 15(5), 479-81 (Nov. 1972); CPM-7302E0005
- Andreev, G. B.**—Study of Cl^{33} Excited States by Elastic Scattering of Polarized Protons by S^{32} (E)—I. D. Lopatko, V. I. Borovlev, G. B. Andreev and R. P. Slabospitskii. 16(2), 127-8 (Feb. 1973); CPM-7304E0230
- Anisovich, V. V.**—Calculations of Shadow Effects in Proton-Deuteron Collisions (T)—V. V. Anisovich, P. E. Volkovitskii and L. G. Dakhno. 15(1), 97-9 (Jul. 1972); CPM-7209C1049
- Ansel'm, A. A.**—Introduction of Noncommuting Operators into Trajectories of Dual Models (T)—A. A. Ansel'm, G. S. Danilov and I. T. Dyatlov. 15(1), 87-92 (Jul. 1972); CPM-7209C1039

- Antipov, Yu. M.**—Missing-Mass Spectra Observed in the Reaction $\pi^+ + p \rightarrow p + X$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Èch, M. N. Kienzle-Focacci, W. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550–3 (May 1973); CPM-7309D1266
- Antonov, A. N.**—Elastic and Inelastic Glauber Scattering of Protons by C^{12} in the α -Particle Model (T)—A. N. Antonov and E. V. Inopin. 16(1), 38–41 (Jan. 1973); CPM-7304E0142
- Excitation of Nuclear Vibrational Levels by Electrons According to the α -Particle Model (T)—A. N. Antonov and E. V. Inopin. 16(2), 182–4 (Feb. 1973); CPM-7304E0285
- Antonova, M. G.**—Analysis of the Angular and Energy Characteristics of Secondary Particles Produced in Proton-Proton Interactions at 10 BeV/c (E)—Zh. S. Takibaev, M. G. Antonova, È. G. Boos, D. I. Ermilova, L. A. San'ko, T. Temiraliyev and A. V. Kholmetskaya. 15(1), 38–43 (Jul. 1972); CPM-7209C0990
- Antuf'ev, Yu. P.**—Study of (γ , T) Reactions in Nuclei with Bremsstrahlung Energies up to 1200 MeV (E)—Yu. P. Antuf'ev, V. L. Agranovich, V. B. Ganenko, V. S. Kuz'menko, I. I. Miroschnichenko, P. V. Sorokin and S. V. Shalatskii. 15(4), 357–60 (Oct. 1972); CPM-7212D1902
- Anzon, Z. V.**—Momentum Characteristics of Pion-Nucleon Interactions at 60 BeV (E)—Zh. S. Takibaev, I. Ya. Chasnikov, A. Kh. Vinitskii, V. G. Voinov, Ts. I. Shakhova, I. S. Strel'tsov and Z. V. Anzon. 16(3), 300–3 (Mar. 1973); CPM-7306D0396
- Arifkhanov, U. R.**—Be⁶ and B⁹ Levels from (p,n) Reactions (E)—U. R. Arifkhanov, M. Gulyamov, B. I. Islamov and È. Èrgashov. 15(6), 610 (Dec. 1972); CPM-7302E0136
- Arkato, Yu. M.**—Photodisintegration of He⁴ into Two Deuterons (E)—Yu. M. Arkato, P. I. Vats'et, V. I. Voloshchuk, I. M. Prokhorets, A. F. Khodyachikh and V. I. Chmil. 16(1), 6–8 (Jan. 1973); CPM-7304E0110
- Artyukh, A. G.**—Angular Distribution and Excitation Functions of the Reactions (N¹⁵, N¹⁶), (N¹⁴, N¹⁶), (N¹⁵, N¹⁷), (N¹⁴, N¹⁷) (E)—A. G. Artyukh, V. V. Volkov, L. Pomorski and J. Tys. 16(5), 499–501 (May 1973); CPM-7309D1215
- Arushanov, G. G.**—Solution of Unitarity Condition with Modified Overlap Function (T)—G. G. Arushanov. 15(1), 74–8 (Jul. 1972); CPM-7209C1026
- The Ratio of the Real Part of the Scattering Amplitude to its Imaginary Part at Non-zero Momentum Transfers (T)—G. G. Arushanov. 15(2), 211–3 (Aug. 1972); CPM-7210C1472
- Avakyan, V. V.**—Analysis of Theoretical and Experimental Data on the Multiplicity of Shower Particles in High-Energy Hadron Interactions (R)—V. V. Avakyan, M. I. Keropyan and È. A. Mamidzhanyan. 16(4), 423–5 (Apr. 1973); CPM-7309D1139
- Aver'yanov, I. K.**—Mechanism of (n,p) and (n, α) Reactions on Light and Medium Nuclei (E/T)—A. È. Sav'el'ev, I. K. Aver'yanov and B. M. Dzyuba. 15(4), 416–8 (Oct. 1972); CPM-7212D1961
- Azaryan, M. O.**—Comparison of the Characteristics of the Interaction of Protons and Neutrons with C, Fe, and Pb Nuclei (E)—M. O. Azaryan, È. A. Mamidzhanyan, R. M. Martirosyan and R. A. Suleimanov. 16(6), 678–81 (Jun. 1973); CPM-7310E1526
- Azimov, S. A.**—Coherent Diffraction Production of Pions by Photons in Photoemulsion Nuclei (E)—Sh. Abduzhamilov, S. A. Azimov, N. Sh. Saidkhanov and V. M. Chudakov. 15(2), 169–75 (Aug. 1972); CPM-7210C1430
- Aznauryan, I. G.**—Dispersion Relations and Data on the Reaction $\gamma n \rightarrow \pi n$ in the 33 Resonance Region (T)—I. G. Aznauryan and A. N. Zaslavskii. 15(6), 696–8 (Dec. 1972); CPM-7302E0222
- B**
- Babaev, Z. R.**—Continuous Sum Rules and Asymptotic Total πN Interaction Cross Sections (E)—Z. R. Babaev and V. S. Zamiralov. 16(6), 718–9 (Jun. 1973); CPM-7310E1566
- Baier, V. N.**—Pair Production at Large Angles in Colliding-Beam Experiments (T)—V. N. Baier and V. S. Fadin. 15(1), 56–8 (Jul. 1972); CPM-7209C1008
- Erratum: Higher-order Effects in External Field: Pair Production by a Particle [14, 572 (5)] (T)—V. N. Baier, V. M. Katkov and V. M. Strakhovenko. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Balakin, V. È.**—Observation of Double e⁺e⁻ Pair Production (E)—V. È. Balakin, A. D. Bukin, L. M. Kurdadze, P. P. Onuchin, E. V. Pakhtusova, S. I. Serednyakov, V. A. Sidorov and A. G. Khabakhpashev. 16(4), 407–9 (Apr. 1973); CPM-7309D1123
- Balashov, V. V.**—Knock-Out Reactions in Quasielastic and Antiquasielastic Kinematics (T)—V. V. Balashov, N. M. Kabachnik and N. N. Titarenko. 16(5), 622(L) (May 1973); CPM-7309D1338
- Bardin, D. Yu.**—On the Decay Mode $\mu^+ \rightarrow e^+ \nu_e \bar{\nu}_e e^+$ (T)—D. Yu. Bardin, Ts. G. Istatkov and G. B. Mitsel'makher. 15(2), 161–2 (Aug. 1972); CPM-7210C1422
- The Radiative Decays π (K) $\rightarrow l \nu \gamma$ (T)—D. Yu. Bardin and S. M. Bilen'kii. 16(3), 311–5 (Mar. 1973); CPM-7306D0407
- Barmin, V. V.**—Study of the Reaction $\pi^+ + p \rightarrow n + m \pi$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163–5 (Aug. 1972); CPM-7210C1424
- Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Mirosidi, T. A. Chistyakova, I. V. Chuvilo and V. A. Shebanov. 15(6), 636–7 (Dec. 1972); CPM-7302E0162
- Measurement of the Branching Ratio $\Gamma(K_L \rightarrow 3\pi^0)/\Gamma(K_L \rightarrow \pi^+ \pi^- \pi^0)$ (E)—V. V. Barmin, V. G. Barylov, G. D. Davidenko, V. S. Demidov, A. G. Dolgolenko, N. K. Zombkovskaya, A. G. Meshkovskii, G. S. Mirosidi, T. A. Chistyakova and V. A. Shebanov. 15(6), 638 (Dec. 1972); CPM-7302E0164
- Bartenev, V. D.**—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650–3 (Dec. 1972); CPM-7302E0176
- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyung Bien and M. G. Shafranov. 16(1), 50–6 (Jan. 1973); CPM-7304E0154
- Barts, B. I.**—Theory of (γ , n) Reactions at Energies Above the Pion Production Threshold (T)—I. A. Akheizer and B. I. Barts. 15(2), 143–6 (Aug. 1972); CPM-7210C1404
- Oscillations of a Fermi Liquid Drop and Giant Resonance in Medium and Heavy Nuclei (T)—I. A. Akheizer, B. I. Barts and V. T. Lazurik-Èl'tsufin. 15(5), 484–6 (Nov. 1972); CPM-7302E0010
- Barylov, V. G.**—Measurement of the Branching Ratio $\Gamma(K_L \rightarrow 3\pi^0)/\Gamma(K_L \rightarrow \pi^+ \pi^- \pi^0)$ (E)—V. V. Barmin, V. G. Barylov, G. D. Davidenko, V. S. Demidov, A. G. Dolgolenko, N. K. Zombkovskaya, A. G. Meshkovskii, G. S. Mirosidi, T. A. Chistyakova and V. A. Shebanov. 15(6), 638 (Dec. 1972); CPM-7302E0164
- Basova, B. G.**—Fission of U²³⁵ by Thermal Neutrons (E)—V. P. Zakharova, D. K. Ryazanov, B. G. Basova, A. D. Rabinovich and V. A. Kostylev. 16(4), 364–71 (Apr. 1973); CPM-7309D1080
- Batkin, I. S.**—Internal Bremsstrahlung Accompanying a Unique β Transition of Cs¹³⁷ (E)—I. S. Batkin and Yu. G. Smirnov. 16(4), 405–6 (Apr. 1973); CPM-7309D1121
- Batusov, Yu. A.**—Formation of B⁰ in Capture of Stopped π^- Mesons by Nitrogen Nuclei (E)—N. M. Agababyan, Yu. A. Batusov, S. A. Bunyatov, G. P. Gulkanyan, V. M. Sidorov and V. A. Yarba. 15(1), 10–1 (Jul. 1972); CPM-7209C0962
- Bat'yan, A. L.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, È. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412–6 (Apr. 1973); CPM-7309D1128
- Baz', A. I.**—A Model for the Equations of Nuclear Physics (T)—A. I. Baz' and M. V. Zhukov. 16(1), 31–7 (Jan. 1973); CPM-7304E0135
- Use of the K-Harmonics Method for Spin-Orbit Splitting Calculations of Light Nuclei (T)—A. I. Baz', A. M. Gorbato, V. F. Demin, Yu. È. Pokrovskii and Yu. K. Rogov. 16(2), 179–81 (Feb. 1973); CPM-7304E0282

- Model of the Equations of Nuclear Physics. One Decay Channel (T)—A. I. Baz' and M. V. Zhukov. 16(5), 529–36 (May 1973); CPM-7309D1245
- Belincher, V. I.**—O(3, 1) Model with Mesons Having an Intrinsic Structure (T)—V. I. Belincher. 15(4), 464–70 (Oct. 1972); CPM-7212D2009
- Belousov, A. S.**—Ionization Loss of High-Energy Electrons (E)—A. S. Belousov, E. I. Malinovskii, S. V. Rusakov and P. N. Shareiko. 16(2), 189–90 (Feb. 1973); CPM-7304E0292
- Belovitskii, G. E.**—Angular Distributions of 13.7-MeV Neutrons Elastically Scattered by the Isotopes $Pb^{206,207,208}$ (E)—G. E. Belovitskii, L. N. Kolesnikova and I. M. Frank. 15(4), 369–71 (Oct. 1972); CPM-7212D1914
- Inelastic Scattering of 13.7 MeV Neutrons by Lead Isotopes (E)—G. E. Belovitskii, L. N. Kolesnikova and I. M. Frank. 15(4), 372–4 (Oct. 1972); CPM-7212D1917
- Belyaev, S. T.**—Method of Generalized Density Matrix in the Theory of Collective Excitations (T)—S. T. Belyaev and V. G. Zelevinskii. 16(6), 657–64 (Jun. 1973); CPM-7310E1505
- Beresnev, V. I.**—Investigation of Underground Nuclear Interactions of Cosmic Ray Muons (E)—I. B. Bezrukov, V. I. Beresnev, G. T. Zatepin, M. I. Nyunin, O. G. Ryazhskaya and L. N. Stepanets. 15(2), 176–83 (Aug. 1972); CPM-7210C1437
- Bereznev, S. F.**—Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi^+p \rightarrow e^+n$ at $E_{\text{kin}} = 275$ MeV (E)—S. F. Bereznev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, A. V. Kuptsov, G. G. Mkrtchyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. 16(1), 99–102 (Jan. 1973); CPM-7304E0203
- Berkov, A. V.**—Erratum: Angular and Momentum Distributions of μ^+ Mesons Resulting from the Decay of the W^+ Boson in the Reaction $\nu + Z \rightarrow \mu^+ + Z + W^+$ [14, 236 (2)] (T)—A. V. Berkov, E. D. Zhizhin, Yu. P. Nikitin and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Beznogikh, G. G.**—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650–3 (Dec. 1972); CPM-7302E0176
- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyung Bien and M. G. Shafranov. 16(1), 50–6 (Jan. 1973); CPM-7304E0154
- Bezrukov, I. B.**—Investigation of Underground Nuclear Interactions of Cosmic Ray Muons (E)—I. B. Bezrukov, V. I. Beresnev, G. T. Zatepin, M. I. Nyunin, O. G. Ryazhskaya and L. N. Stepanets. 15(2), 176–83 (Aug. 1972); CPM-7210C1437
- Bien, Chyung**—Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyung Bien and M. G. Shafranov. 16(1), 50–6 (Jan. 1973); CPM-7304E0154
- Bilen'kii, S. M.**—The Radiative Decays $\pi(K) \rightarrow \mu\gamma$ (T)—D. Yu. Bardin and S. M. Bilen'kii. 16(3), 311–5 (Mar. 1973); CPM-7306D0407
- Birulev, V. K.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14–42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatina, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshv, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534–7 (Nov. 1972); CPM-7302E0060
- Blinov, M. V.**— CF^{252} Fission Neutrons (E)—M. V. Blinov, N. M. Kazarinov and I. T. Krisyuk. 16(6), 634–7 (Jun. 1973); CPM-7310E1482
- Blusvštein, R. É.**—Transition Toroidal Form Factors of Light Nuclei (T)—R. É. Blusvštein, V. M. Dubovik and A. A. Cheshkov. 15(1), 59–63 (Jul. 1972); CPM-7209C1011
- Bochev, B.**—Lifetimes of the Rotational Levels of Yb^{164} Measured by the Doppler Effect in the Recoil Nuclei (E)—B. Bochev, S. A. Karamyan, T. Kutsarova, Ya. Ukhlin, E. Nadzhakov, Ts. Venkova and R. Kalpakchieva. 16(4), 355–8 (Apr. 1973); CPM-7309D1071
- Bochin, V. P.**—Experiments Aimed at Finding Proton Decay from the Ground State (E)—D. D. Bogdanov, V. P. Bochin, V. A. Karnaukhov and L. A. Petrov. 16(5), 491–6 (May 1973); CPM-7309D1207
- Bogdanov, D. D.**—Experiments Aimed at Finding Proton Decay from the Ground State (E)—D. D. Bogdanov, V. P. Bochin, V. A. Karnaukhov and L. A. Petrov. 16(5), 491–6 (May 1973); CPM-7309D1207
- Bogdanov, V. G.**—Mass Distribution of Products of Long-Range-Particle Fission (T)—V. G. Bogdanov, Z. I. Solov'eva, O. E. Shigaev and V. S. Bychenkov. 15(2), 119–20 (Aug. 1972); CPM-7210C1380
- Erratum: Mass Distribution of Products of Long-range-particle Fission [9, 427 (1962)] (T)—V. G. Bogdanov, Z. I. Solov'eva, O. E. Shigaev and V. S. Bychenkov. 15(4), 473–4 (Oct. 1972); CPM-7212D2018
- Bogomol'ny, E. B.**—Possible CPT-Breaking Effects and the Decay $K_L \rightarrow 2\mu$ (T)—E. B. Bogomol'ny, A. D. Dolgov, V. I. Zakharov, L. B. Okun' and M. V. Terent'ev. 15(5), 549–53 (Nov. 1972); CPM-7302E0075
- Bogomol'nyi, E. B.**—The $K_L^0 \rightarrow \mu^+ \mu^-$ Decay and a Possible Anomalous Muon-Hadron Interaction (T)—E. B. Bogomol'nyi, A. D. Dolgov, V. I. Zakharov, L. B. Okun', M. A. Shifman and M. Zh. Shmatikov. 16(1), 70–6 (Jan. 1973); CPM-7304E0174
- Bogoslovskii, G. Yu.**—Geometrical Approach to the Investigation of Kinematic Symmetries of Free Particle Systems (T)—N. P. Klepikov and G. Yu. Bogoslovskii. 16(4), 478–82 (Apr. 1973); CPM-7309D1194
- Boikov, V. V.**—Investigation of (p,pd) Reaction on Light Nuclei at 50 MeV (E)—V. V. Boikov, B. V. Vel'berg, I. I. Loshchakov and V. I. Ostroumov. 15(3), 239–40 (Sep. 1972); CPM-7211A1868
- The $O^{16}(p, p\alpha)C^{12}$ Reaction with 50-MeV Protons (E)—V. V. Boikov, B. V. Vel'berg, I. I. Loshchakov and V. I. Ostroumov. 16(5), 497–8 (May 1973); CPM-7309D1213
- Boitsov, V. N.**—Two-Photon Exchange in Large-Angle Scattering of High-Energy Electrons by Light Nuclei (T)—V. N. Boitsov, L. A. Kondratyuk and V. B. Kopeliovich. 16(3), 287–91 (Mar. 1973); CPM-7306D0383
- Boos, É. G.**—Analysis of the Angular and Energy Characteristics of Secondary Particles Produced in Proton-Proton Interactions at 10 BeV/c (E)—Zh. S. Takibaev, M. G. Antonova, É. G. Boos, D. I. Ermilova, L. A. San'ko, T. Temiraliyev and A. V. Kholmetskaya. 15(1), 38–43 (Jul. 1972); CPM-7209C0990
- Charged Particle Distribution in Inelastic Proton-Neutron Interactions at 19.2 GeV/c (E)—É. G. Boos, B. O. Zhaitykov, E. S. Lukin, A. M. Mosienko and R. A. Tursunov. 16(2), 187–8 (Feb. 1973); CPM-7304E0290
- Study of Four Prong pp Interaction at a Momentum 19.1 GeV/c (E)—Zh. S. Takibaev, É. G. Boos, L. A. San'ko, T. I. Mukhordova, A. M. Mosienko, K. G. Zaitsev and K. V. Sharapov. 16(5), 537–41 (May 1973); CPM-7309D1253
- Boreskov, K. G.**—Model of Reggeized One-Pion Exchange and the $pp \rightarrow pn\pi^+$ Reaction (T)—K. G. Boreskov, A. B. Kaidalov, V. I. Lisin, E. S. Nikolaevskii and L. A. Ponomarev. 15(2), 203–8 (Aug. 1972); CPM-7210C1464
- Analysis of the $np \rightarrow pp\pi^-$ Reaction from the Point of View of a Reggeized OPE Model (E)—K. G. Boreskov, A. P. Gasparyan, A. B. Kaidalov, A. V. Nikitin, Yu. A. Troyan and L. A. Ponomarev. 15(3), 309–13 (Sep. 1972); CPM-7211A1938
- Borisenko, A. I.**—Production of Fast Helium and Triton Nuclei in an Interaction of High-Energy Pions with Heavy Emulsion Nuclei (E)—A. I. Borisenko, A. P. Kazanskaya, P. V. Morozova, Zh. S. Takibaev and N. S. Titova. 15(4), 419–22 (Oct. 1972); CPM-7212D1964
- Borkovskii, M. Ya.**—Calculation of Electron-Proton Showers Produced in Lead by Electrons and γ Rays with Energies from 50 to 400 MeV (T)—M. Ya. Borkovskii and S. P. Kruglov. 16(2), 194–8 (Feb. 1973); CPM-7304E0297

- Borovlev, V. I.**—Study of C^{13} Excited States by Elastic Scattering of Polarized Protons by S^{32} (E)—I. D. Lopatko, V. I. Borovlev, G. B. Andreev and N. P. Slabospitskii. 16(2), 127-8 (Feb. 1973); CPM-7304E0230
- Bozovoi, N. A.**—Nonconservation of P-Parity in γ Decay of K^{41} (E)—B. M. Lobashov, V. A. Nazarenko, N. A. Bozovoi, L. M. Smotritskii, G. I. Kharkevich and V. A. Knyaz'kov. 15(6), 632-5 (Dec. 1972); CPM-7302E0158
- Brill, O. D.**—Investigation of the Mirror Reactions (He^3, n) and (He^3, p) on the C^{12} Nucleus (E)—O. D. Brill, A. D. Vongai, K. A. Gridnev and A. R. Faiziev. 16(4), 359-63 (Apr. 1973); CPM-7309D1075
- Budagov, Y. A.**—Production of Pairs of Λ^0 Hyperons in Interactions of π^- Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, Zh. K. Karamyan, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44-6 (Jul. 1972); CPM-7209C0996
- Budagov, Yu. A.**—Investigation of the Reactions $\pi\pi^- \rightarrow n\pi^+ \pi^- + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Budnev, V. M.**—Applicability of the Weizsäcker-Williams Approximation to Two-Photon Particle Production (T)—V. M. Budnev, I. F. Ginzburg, G. V. Medelin and V. G. Serbo. 16(2), 201-3 (Feb. 1973); CPM-7304E0304
- Budnik, A. P.**—High-Spin Levels of Even-Even Nuclei in a Phenomenological Collective Model (T)—A. P. Budnik, N. S. Rabotnov and A. A. Seregin. 15(3), 262-3 (Sep. 1972); CPM-7211A1891
- E2 Transitions and Quadrupole Moments of States with High Spin in the Collective Model (T)—A. P. Budnik, N. S. Rabotnov and A. A. Seregin. 16(1), 17-8 (Jan. 1973); CPM-7304E0121
- Bugrii, A. I.**— $NN \rightarrow 3\pi$ Annihilation in Dual Models (T)—A. I. Bugrii, L. L. Enkovskii and N. A. Kobylinskii. 15(6), 699-701 (Dec. 1972); CPM-7302E0225
- Bujak, A.**—Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyung Bien and M. G. Shafranov. 16(1), 50-6 (Jan. 1973); CPM-7304E0154
- Buki, A. Yu.**—Determination of the Charge Distribution Parameters of Ni^{60} , Zn^{64} , and Zn^{66} by Elastic Electron Scattering (E)—A. S. Litvinenko, N. G. Shevchenko, N. G. Afanas'ev, A. Yu. Buki, G. A. Savitskii, V. M. Khvastunov, A. A. Khomich, I. I. Chkalov and V. P. Likhachev. 15(6), 611-3 (Dec. 1972); CPM-7302E0137
- Bukin, A. D.**—Observation of Double e^+e^- Pair Production (E)—V. E. Balakin, A. D. Bukin, L. M. Kurdadze, A. P. Onuchin, E. V. Pakhtusova, S. I. Serednyakov, V. A. Sidorov and A. G. Khabakhpashev. 16(4), 407-9 (Apr. 1973); CPM-7309D1123
- Bunakov, V. E.**—Examination of Distorted Wave Method for Stripping Reactions to Resonant States (T)—V. E. Bunakov, K. A. Gridnev and L. V. Krasnov. 15(5), 508-12 (Nov. 1972); CPM-7302E0034
- Bunatian, G. G.**—Probability of (μ^+, ν) Process on La^{139} and Pb^{208} Nuclei (E)—G. G. Bunatian, L. Vil'gel'mova, V. S. Evseev, L. N. Nikityuk, V. N. Pokrovskii, V. N. Rybakov and I. A. Yutlandov. 15(5), 526-7 (Nov. 1972); CPM-7302E0052
- Bunyatov, S. A.**—Formation of B^8 in Capture of Stopped π^- Mesons by Nitrogen Nuclei (E)—N. M. Agababyan, Yu. A. Batusov, S. A. Bunyatov, G. P. Gulkanyan, V. M. Sidorov and V. A. Yarba. 15(1), 10-1 (Jul. 1972); CPM-7209C0962
- Model of the Partial-Wave Analysis of the Δ_{1236} Resonance Production Reactions $\pi N \rightarrow \pi\pi N$ Near Threshold with Allowance for the Triangle Graph Contribution (T)—S. A. Bunyatov, V. S. Kurbatov and A. K. Likhoded. 16(6), 705-8 (Jun. 1973); CPM-7310E1553
- Estimate of the $\pi\pi$ Scattering Length a_0 by the Method of Separating the Triangle Graph Contribution in the Reactions $\pi N \rightarrow \pi\pi N$ (T/E)—S. A. Bunyatov, V. S. Kurbatov, A. K. Likhoded and H. M. Staudenmaier. 16(6), 709-12 (Jun. 1973); CPM-7310E1557
- Bushnin, Yu. B.**—Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674-7 (Jun. 1973); CPM-7310E1522
- Busnello, R.**—Missing-Mass Spectra Observed in the Reaction $\pi^+ + p \rightarrow p + X^-$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Eßch, M. N. Kienzle-Focacci, W. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550-3 (May 1973); CPM-7309D1266
- Buyak, A.**—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650-3 (Dec. 1972); CPM-7302E0176
- Bychenkov, V. S.**—Mass Distribution of Products of Long-Range-Particle Fission (T)—V. G. Bogdanov, Z. I. Solov'eva, O. E. Shigaev and V. S. Bychenkov. 15(2), 119-20 (Aug. 1972); CPM-7210C1380
- Erratum: Mass Distribution of Products of Long-range-particle Fission (J, 427 [1962]) (T)—V. G. Bogdanov, Z. I. Solov'eva, O. E. Shigaev and V. S. Bychenkov. 15(4), 473-4 (Oct. 1972); CPM-7212D2018
- Byvalin, S. A.**—Electroproduction of Pions from Protons at Threshold for Momentum Transfers up to 10.4 F^2 (E/T)—Yu. I. Titov, N. F. Severin, N. G. Afanas'ev, R. V. Akhmerov, S. A. Byvalin, E. V. Stepula and E. M. Smelov. 15(3), 273-5 (Sep. 1972); CPM-7211A1902

C

- Chachkhunashvili, M. Sh.**—Excitation Spectrum of Residual Nuclei in (π^-, nn) Reaction (E)—T. I. Kopaleishvili, I. Z. Machabeli and M. Sh. Chachkhunashvili. 15(6), 629-31 (Dec. 1972); CPM-7302E0155
- Chasnikov, I. Ya.**—Momentum Characteristics of Pion-Nucleon Interactions at 60 BeV (E)—Zh. S. Takibaev, I. Ya. Chasnikov, A. Kh. Vinit'ski, V. G. Voinov, Ts. I. Shakhova, I. S. Strel'tsov and Z. V. Anzon. 16(3), 300-3 (Mar. 1973); CPM-7306D0396
- Chechin, V. A.**—Ultra-High-Energy Cosmic Rays and a Possible Generalization of Relativistic Theory (T)—D. A. Kirzhnits and V. A. Chechin. 15(5), 585-9 (Nov. 1972); CPM-7302E0111
- Cherdantsev, P. A.**—Fission Barriers of Odd Nuclei (T)—G. D. Adee and P. A. Cherdantsev. 16(5), 507-10 (May 1973); CPM-7309D1223
- Chernei, M. I.**—Rotational Invariance, Moments of Inertia, and 1^+ States in Deformed Nuclei (T)—N. I. Pyatov and M. I. Chernei. 16(5), 514-8 (May 1973); CPM-7309D1230
- Chernev, Kh. M.**—Slope Parameter of Differential Elastic pp Scattering Cross Section (T)—Kh. M. Chernev. 16(4), 421-2 (Apr. 1973); CPM-7309D1137
- Chernov, I. P.**—Backward Scattering of Deutrons by Light Nuclei (E)—V. A. Matusevich, V. A. Solov'ev and I. P. Chernov. 15(4), 375-6 (Oct. 1972); CPM-7212D1920
- Elastic Scattering of 26.6-MeV α Particles by Light Nuclei (E)—B. I. Kuznetsov, R. E. Ovsyannikova and I. P. Chernov. 15(4), 377-8 (Oct. 1972); CPM-7212D1922
- Chernyak, V. L.**—Virtual $\gamma\gamma$ Scattering and a New Type of Scaling (T)—V. L. Chernyak. 16(4), 433-9 (Apr. 1973); CPM-7309D1149
- Cheshkov, A. A.**—Transition Toroidal Form Factors of Light Nuclei (T)—R. É. Bluvshstein, V. M. Dubovik and A. A. Cheshkov. 15(1), 59-63 (Jul. 1972); CPM-7209C1011
- Chirkin, Yu. M.**—Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi\pi^- \rightarrow e^+e^- n$ at $E_{\text{kin}} = 275$ MeV (E)—S. F. Berezhnev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, A. V. Kuptsov, G. G. Mkrtchyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. 16(1), 99-102 (Jan. 1973); CPM-7304E0203
- Chistyakov, L. V.**—Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of Cf^{249} (E)—K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kosyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentshev and V. N. Okolovich. 15(1), 17-9 (Jul. 1972); CPM-7209C0969

- CP229** Fission Cross Section in the Neutron Energy Range 0.16–1.6 MeV (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, V. N. Kosyakov, G. A. Otroshchenko, L. V. Chistyakov, V. A. Shigin and V. M. Shubko. 15(1), 20–1 (Jul. 1972); CPM-7209C0972
- Chistyakova, T. A.**—Study of the Reaction $\pi^+ + p \rightarrow n + \pi^0$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163–5 (Aug. 1972); CPM-7210C1424
- Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova, I. V. Chuvilo and V. A. Shebanov. 15(6), 636–7 (Dec. 1972); CPM-7302E0162
- Measurement of the Branching Ratio $\Gamma(K_L \rightarrow 3\pi^0)/\Gamma(K_L \rightarrow \pi^+ \pi^- \pi^0)$ (E)—V. V. Barmin, V. G. Barylov, G. D. Davidenko, V. S. Demidov, A. G. Dolgolenko, N. K. Zombkovskaya, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova and V. A. Shebanov. 15(6), 638 (Dec. 1972); CPM-7302E0164
- Chkalov, I. I.**—Determination of the Charge Distribution Parameters of Ni^{60} , Zn^{64} , and Zn^{66} by Elastic Electron Scattering (E)—A. S. Litvinenko, N. G. Shevchenko, N. G. Afanas'ev, A. Yu. Buki, G. A. Savitskii, V. M. Khvastunov, A. A. Khomich, I. I. Chkalov and V. P. Likhachev. 15(6), 611–3 (Dec. 1972); CPM-7302E0137
- Chmil, V. I.**—Photodisintegration of He^4 into Two Deuterons (E)—Yu. M. Arkatov, P. I. Vatsset, V. I. Voloshchuk, I. M. Prokhorets, A. F. Khodyachikh and V. I. Chmil. 16(1), 6–8 (Jan. 1973); CPM-7304E0110
- Chudakov, V. M.**—Coherent Diffraction Production of Pions by Photons in Photoemulsion Nuclei (E)—Sh. Abduzhamilov, S. A. Azimov, N. Sh. Saidkhanov and V. M. Chudakov. 15(2), 169–75 (Aug. 1972); CPM-7210C1430
- Chumin, V. G.**—Splitting of the 5793 keV Doublet in the Ac^{225} α Spectrum (E)—N. A. Golovkov, B. S. Dzhelepov, R. B. Ivanov, M. A. Mikhailova and V. G. Chumin. 15(4), 349 (Oct. 1972); CPM-7212D1894
- Chupronov, D. L.**—Correlation of α Particles and γ Rays from the Reaction $Al^{27}(p, \alpha_1 \gamma)Mg^{24}$ for 6.40–MeV Protons (E)—S. S. Vasil'ev, A. S. Dem'yanova, V. S. Zazulin, S. D. Kostyuchenkov, T. N. Mikhaleva, S. F. Nikyaki and D. L. Chupronov. 15(4), 367–8 (Oct. 1972); CPM-7212D1912
- Chursin, G. P.**—Nuclear Reactions Produced by α Particles on Co^{59} Nuclei (E)—O. A. Zhukova, V. I. Kanashevich, V. V. Laptev and G. P. Chursin. 16(2), 134–7 (Feb. 1973); CPM-7304E0237
- Chuvilo, I. V.**—Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova, I. V. Chuvilo and V. A. Shebanov. 15(6), 636–7 (Dec. 1972); CPM-7302E0162
- Chyong B'en**—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranava. 15(6), 650–3 (Dec. 1972); CPM-7302E0176
- Csikai, J.**—Cross Sections of the Reactions $In^{113}(n, n')In^{113m}$ and $Rh^{103}(n, n')Rh^{103m}$ (E)—A. Pazsit and J. Csikai. 15(3), 232–3 (Sep. 1972); CPM-7211A1861
- D**
- Daibog, E. I.**—Scaling and Hydrodynamic Theory of Multiple Processes (E/T)—E. I. Daibog, Yu. P. Nikitin and I. L. Rozenal'. 16(6), 724–6 (Jun. 1973); CPM-7310E1572
- Dakhno, L. G.**—Calculations of Shadow Effects in Proton–Deuteron Collisions (T)—V. V. Anisovich, P. E. Volkovitskii and L. G. Dakhno. 15(1), 97–9 (Jul. 1972); CPM-7209C1049
- Dakovskii, M.**—Average Number of Prompt Neutrons in the Spontaneous Fission of Fm^{256} (E)—M. Dakovskii, Yu. A. Lazarev and Yu. Ts. Oganessian. 16(6), 641–2 (Jun. 1973); CPM-7310E1489
- Dal'karov, O. D.**—Spin Effects in Production of Quasinuclear Mesons by Antiprotons (T)—O. D. Dal'karov, V. B. Mandel'tsweig and V. A. Khangulyan. 15(1), 100–2 (Jul. 1972); CPM-7209C1052
- Damgaard, G.**—Missing-Mass Spectra Observed in the Reaction $\pi^+ + p \rightarrow p + X^+$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Eché, M. N. Kienzle-Focacci, W. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550–3 (May 1973); CPM-7309D1266
- Danielyan, V. D.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, É. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412–6 (Apr. 1973); CPM-7309D1128
- Danilov, G. S.**—Introduction of Noncommuting Operators into Trajectories of Dual Models (T)—A. A. Ansel'm, G. S. Danilov and I. T. Dyatlov. 15(1), 87–92 (Jul. 1972); CPM-7209C1039
- Danilov, M. M.**—P-Odd Interaction in the $Cd^{113}(n, \gamma)Cd^{114}$ Reaction (E)—Yu. G. Abov, M. M. Danilov, O. N. Ermakov, I. L. Karpikhin, V. K. Rissukhin and A. M. Skorniyakov. 16(6), 670–3 (Jun. 1973); CPM-7310E1518
- Davidenko, G. D.**—Measurement of the Branching Ratio $\Gamma(K_L \rightarrow 3\pi^0)/\Gamma(K_L \rightarrow \pi^+ \pi^- \pi^0)$ (E)—V. V. Barmin, V. G. Barylov, G. D. Davidenko, V. S. Demidov, A. G. Dolgolenko, N. K. Zombkovskaya, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova and V. A. Shebanov. 15(6), 638 (Dec. 1972); CPM-7302E0164
- Davidenko, G. V.**—Study of the Reaction $\pi^+ + p \rightarrow n + \pi^0$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163–5 (Aug. 1972); CPM-7210C1424
- Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova, I. V. Chuvilo and V. A. Shebanov. 15(6), 636–7 (Dec. 1972); CPM-7302E0162
- Davidonis, R. I.**—Ratios of the Internal Conversion Coefficients for $M4$ Transitions in the Nuclei $Te^{121,123,125,127,129}$ (E)—R. A. Kalinauskas, K. V. Makaryunas and R. I. Davidonis. 15(4), 350–1 (Oct. 1972); CPM-7212D1895
- Davydov, A. V.**—Cross Sections for Neutron-Induced Fission of Th^{232} (E)—P. E. Vorotnikov, Z. S. Gladkikh, A. V. Davydov, S. M. Dubrovina, G. A. Otroshchenko, E. S. Pal'shin, V. A. Shigin and V. M. Shubko. 16(5), 505–6 (May 1973); CPM-7309D1221
- Debedevich, G. I.**—Production of Slow Pions in Interactions between High Energy Particles and Nuclei (E)—N. I. Kostanashvili, G. I. Debedevich, D. S. Nabichvishvili and G. I. Kharashvili. 16(5), 542–5 (May 1973); CPM-7309D1258
- Demchenko, G. P.**—Application of the Methods of Statistical Mechanics to Dual Resonance Models (T)—G. P. Demchenko, V. V. Kukhtin and B. V. Struminskii. 16(5), 511–3 (May 1973); CPM-7309D1227
- Demekhina, N. A.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, É. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412–6 (Apr. 1973); CPM-7309D1128
- Anisotropy in the Angular Distribution of Fragments from Photofission at High Energies (E)—N. A. Demekhina, V. I. Kasilov, A. V. Mitrofanova, Yu. N. Ranyuk and P. V. Sorokin. 16(5), 502–4 (May 1973); CPM-7309D1218
- Demidov, A. M.**— Sr^{87} and Zr^{93} Fluorescence after the Capture of Thermal Neutrons (E)—L. V. Groshev, L. I. Govor and A. M. Demidov. 15(4), 347–8 (Oct. 1972); CPM-7212D1892
- Spectra of γ Rays Produced in Si^{30} and S^{34} Capture of Thermal Neutrons (E)—Dzh. D. Dzhabfar, A. A. Abdullah, N. Kh. Al-Kuraishi, M. S. Al'vash, M. A. Khalil and A. M. Demidov. 15(6), 605–7 (Dec. 1972); CPM-7302E0131
- Radiation of p -Levels of Even-Odd Nuclei with $21 \leq A \leq 41$ in Cascade Emission Following Capture of Thermal Neutrons (E)—A. M. Demidov, J. D. Jafar, M. A. Khalil and F. A. Hussein. 16(1), 1–5 (Jan. 1973); CPM-7304E0105

- De-Excitation of Even-Odd Nuclei in the Range $91 \leq N \leq 133$ After Capturing Thermal Neutrons (T)—L. V. Groshev, A. M. Demidov and L. L. Sokolovskii. 16(3), 245-8 (Mar. 1973); CPM-7306D0341
- Demidov, V. S.—Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova, I. V. Chuvilo and V. A. Shebanov. 15(6), 636-7 (Dec. 1972); CPM-7302E0162
- Measurement of the Branching Ratio $\Gamma(K_L \rightarrow 3\pi^0)/\Gamma(K_L \rightarrow \pi^+\pi^-\pi^0)$ (E)—V. V. Barmin, V. G. Barylov, G. D. Davidenko, V. S. Demidov, A. G. Dolgolenko, N. K. Zombkovskaya, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova and V. A. Shebanov. 15(6), 638 (Dec. 1972); CPM-7302E0164
- Demin, V. F.—Use of the K-Harmonics Method for Spin-Orbit Splitting Calculations of Light Nuclei (T)—A. I. Baz', A. M. Gorbato, V. F. Demin, Yu. E. Pokrovskii and Yu. K. Rogov. 16(2), 179-81 (Feb. 1973); CPM-7304E0282
- Demirkhanov, R. A.—Measurements of Atomic Masses in the Region from Titanium to Iron (E)—R. A. Demirkhanov, V. V. Dorokhov and M. I. Dzikuya. 15(5), 475-8 (Nov. 1972); CPM-7302E0001
- Dem'yanov, A. V.—Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi\pi^+\pi^-\pi^0$ at $E_{\text{kin}} = 275$ MeV (E)—S. F. Berezhnev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, A. V. Kuptsov, G. G. Mkrtchyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. 16(1), 99-102 (Jan. 1973); CPM-7304E0203
- Dem'yanova, A. S.—Correlation of α Particles and γ Rays from the Reaction $Al^{27}(p, \alpha\gamma)Mg^{24}$ for 6.40-MeV Protons (E)—S. S. Vasil'ev, A. S. Dem'yanova, V. S. Zazulin, S. D. Kostyuchenkov, T. N. Mikhaleva, S. F. Nikiyaki and D. L. Chupronov. 15(4), 367-8 (Oct. 1972); CPM-7212D1912
- Denisov, S. P.—Total Cross Sections of the $\pi^+\pi$ and $\pi^+\pi^0$ Interactions in the Momentum Region 15-60 GeV/c and the Glauber Correction (E)—Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. I. Petrukhin, Yu. D. Prokoshkin and D. A. Stoyanova. 15(5), 530-3 (Nov. 1972); CPM-7302E0056
- Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674-7 (Jun. 1973); CPM-7310E1522
- Devenski, P. A.—The Real Part of the Amplitude for Elastic pd -Scattering at an Energy of 70 GeV (E)—V. I. Zayachki, L. G. Khristov, Z. M. Zlatanov and P. A. Devenski. 15(5), 528-9 (Nov. 1972); CPM-7302E0054
- Diki, N. P.—Observation of Shadows in the Angular Distributions of Fragments from Photofission of Tantalum, and Evaluation of the Fission Lifetime (E)—N. A. Skakun and N. P. Diki. 15(3), 341-2 (L) (Sep. 1972); CPM-7211A1970
- Dmitrieva, T. A.—Structure Factor of Elastic α -Particle and Deuteron Scattering for the Heavy-Particle Stripping Mechanism (T)—T. A. Dmitrieva and I. B. Teplov. 15(3), 266-8 (Sep. 1972); CPM-7211A1895
- Dolgolenko, A. G.—Study of the Reaction $\pi^+p \rightarrow n + m\gamma$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163-5 (Aug. 1972); CPM-7210C1424
- Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova, I. V. Chuvilo and V. A. Shebanov. 15(6), 636-7 (Dec. 1972); CPM-7302E0162
- Measurement of the Branching Ratio $\Gamma(K_L \rightarrow 3\pi^0)/\Gamma(K_L \rightarrow \pi^+\pi^-\pi^0)$ (E)—V. V. Barmin, V. G. Barylov, G. D. Davidenko, V. S. Demidov, A. G. Dolgolenko, N. K. Zombkovskaya, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova and V. A. Shebanov. 15(6), 638 (Dec. 1972); CPM-7302E0164
- $K_L \rightarrow 2\mu$ Decay and the Possible Existence of a Light Vector Meson (T)—A. D. Dolgov, A. G. Dolgolenko, V. I. Zakharov and L. B. Okun'. 16(2), 209-13 (Feb. 1973); CPM-7304E0312
- Dolgov, A. D.—Shrinkage Singularities and Asymptotic Behavior of the Weak Interaction Cross Section (T)—A. D. Dolgov, V. I. Zakharov and L. B. Okun'. 15(4), 451-6 (Oct. 1972); CPM-7212D1996
- Possible CPT-Breaking Effects and the Decay $K_L \rightarrow 2\mu$ (T)—E. B. Bogomol'ny, A. D. Dolgov, V. I. Zakharov, L. B. Okun' and M. V. Terent'ev. 15(5), 549-53 (Nov. 1972); CPM-7302E0075
- The $K_L^0 \rightarrow \mu^+\mu^-$ Decay and a Possible Anomalous Muon-Hadron Interaction (T)—E. B. Bogomol'ny, A. D. Dolgov, V. I. Zakharov, L. B. Okun', M. A. Shifman and M. Zh. Shmatikov. 16(1), 70-6 (Jan. 1973); CPM-7304E0174
- Contribution of the $\pi^+\pi\gamma$ Intermediate State to the Absorptive Part of the $K_L^0 \rightarrow \mu^+\mu^-$ Decay Amplitude (T)—A. D. Dolgov, M. A. Shifman and M. Zh. Shmatikov. 16(1), 80-1 (Jan. 1973); CPM-7304E0184
- $K_L \rightarrow 2\mu$ Decay and the Possible Existence of a Light Vector Meson (T)—A. D. Dolgov, A. G. Dolgolenko, V. I. Zakharov and L. B. Okun'. 16(2), 209-13 (Feb. 1973); CPM-7304E0312
- Dolinskii, E. I.—Peripheral Model for a Stripping Reaction to a Resonant State (T)—P. O. Dzhmalov, E. I. Dolinskii and A. M. Mukhamedzhanov. 15(2), 147-53 (Aug. 1972); CPM-7210C1408
- Donskov, S. V.—Total Cross Sections of the $\pi^+\pi$ and $\pi^+\pi^0$ Interactions in the Momentum Region 15-60 GeV/c and the Glauber Correction (E)—Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. I. Petrukhin, Yu. D. Prokoshkin and D. A. Stoyanova. 15(5), 530-3 (Nov. 1972); CPM-7302E0056
- Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674-7 (Jun. 1973); CPM-7310E1522
- Dorokhov, V. V.—Measurements of Atomic Masses in the Region from Titanium to Iron (E)—R. A. Demirkhanov, V. V. Dorokhov and M. I. Dzikuya. 15(5), 475-8 (Nov. 1972); CPM-7302E0001
- Dremin, I. M.—Phenomenological Description of Interaction Amplitudes of Off-Mass-Shell Particles (T)—I. M. Dremin. 15(3), 322-6 (Sep. 1972); CPM-7211A1951
- Dubna—Analysis of the Experimental Data on the Multiplicities of the Secondary Particles in $\pi\pi$, $\pi\pi$, and $\pi\pi$ Collision at a Momentum 40 GeV/c (E)—Dubna. 16(5), 546-9 (May 1973); CPM-7309D1262
- Dubovik, V. M.—Transition Toroidal Form Factors of Light Nuclei (T)—R. E. Bluvshstein, V. M. Dubovik and A. A. Cheshkov. 15(1), 59-63 (Jul. 1972); CPM-7209C1011
- Dubovikov, M. S.—Absorptive Model and the Reactions $\pi\pi \rightarrow \rho\rho$ and $\pi\pi \rightarrow \rho^0\rho$ at a Momentum 3.25 GeV/c (T)—V. M. Guzhavin and M. S. Dubovikov. 16(2), 229-31 (Feb. 1973); CPM-7304E0332
- Pole in t Parametrization of the Signature Factor and the Optical Model (T)—M. S. Dubovikov. 16(3), 316-9 (Mar. 1973); CPM-7306D0412
- Absorption Model and Spin Parity of the B Meson (T)—V. M. Guzhavin and M. S. Dubovikov. 16(3), 320-2 (Mar. 1973); CPM-7306D0416
- Dubovikov, N. S.—One More Version of the Absorptive One Pion Exchange Model (T)—V. N. Guzhavin and N. S. Dubovikov. 15(2), 198-202 (Aug. 1972); CPM-7210C1459
- Dubrovina, S. M.— Cf^{259} Fission Cross Section in the Neutron Energy Range 0.16-1.6 MeV (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, V. N. Kosyakov, G. A. Otroshchenko, L. V. Chistyakov, V. A. Shigin and V. M. Shubko. 15(1), 20-1 (Jul. 1972); CPM-7209C0972
- Angular Distributions of Fragments in Neutron-Induced Fission of Cf^{259} (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, G. A. Otroshchenko and V. A. Shigin. 16(4), 372-3 (Apr. 1973); CPM-7309D1088
- Cross Sections for Neutron-Induced Fission of Th^{232} (E)—P. E. Vorotnikov, Z. S. Gladikh, A. V. Davydov, S. M. Dubrovina, G. A. Otroshchenko, E. S. Pal'shin, V. A. Shigin and V. M. Shubko. 16(5), 505-6 (May 1973); CPM-7309D1221
- Dumbrais, O. V.—Relation between the KNA and $KN\Sigma$ Coupling Constants and Bounds on Them (T)—O. V. Dumbrais. 16(3), 335-6 (Mar. 1973); CPM-7306D0431
- Dunaitsev, A. F.—Measurement of the Mean Life of the π^+ Meson by an Oscillographic Method (E)—A. F. Dunaitsev, Yu. D. Prokoshkin, E. A. Razuvaev, V. A. Sergeev and Yu. N. Simonov. 16(3), 292-7 (Mar. 1973); CPM-7306D0388

- Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrkhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674-7 (Jun. 1973); CPM-7310E1522
- D'yachenko, N. P.—Influence of Excitation Energy on the Mass and Kinetic Energy Distributions of U^{233} Fission Fragments (E)—A. I. Sergechev, N. P. D'yachenko, A. M. Kovalev and B. D. Kuz'minov. 16(3), 266-9 (Mar. 1973); CPM-7306D0362
- Dyatlov, I. T.—Introduction of Noncommuting Operators into Trajectories of Dual Models (T)—A. A. Ansel'm, G. S. Danilov and I. T. Dyatlov. 15(1), 87-92 (Jul. 1972); CPM-7209C1039
- Dzhafar, Dzh. D.—Spectra of γ Rays Produced in Si^{30} and Si^{34} Capture of Thermal Neutrons (E)—Dzh. D. Dzhafar, A. A. Abdullah, N. Kh. Al-Kuraishi, M. S. Al'vash, M. A. Khalil and A. M. Demidov. 15(6), 605-7 (Dec. 1972); CPM-7302E0131
- Dzhalaganiya, T. R.—Investigation of the Cluster Structure of the Be ^{8} Nucleus (T)—I. Sh. Vashakidze and T. R. Dzhalaganiya. 16(4), 382-5 (Apr. 1973); CPM-7309D1098
- The Cluster Model and the Structure of the C^{12} Nucleus (T)—I. Sh. Vashakidze and T. R. Dzhalaganiya. 16(5), 519-21 (May 1973); CPM-7309D1235
- Dzhamalov, P. O.—Peripheral Model for a Stripping Reaction to a Resonant State (T)—P. O. Dzhamalov, E. I. Dolinskii and A. M. Mukhamedzhanov. 15(2), 147-53 (Aug. 1972); CPM-7210C1408
- Dzhelepov, B. S.—Splitting of the 5793 keV Doublet in the Ac^{225} α Spectrum (E)—N. A. Golovkov, B. S. Dzhelepov, R. B. Ivanov, M. A. Mikhailova and V. G. Chumlin. 15(4), 349 (Oct. 1972); CPM-7212D1894
- Dzhelepov, V. P.—Production of Pairs of Λ^0 Hyperons in Interactions of π^- Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, Zh. K. Karamyran, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44-6 (Jul. 1972); CPM-7209C0996
- Investigation of the Reactions $\pi p \rightarrow \pi p + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. V. Kladar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Khazhchev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Dzhuraev, A. A.—Dependence of the Depolarization of Negative Muons on the Molecular Weight and Temperature in Organic Compounds (E)—A. A. Dzhuraev, V. S. Evseev, Yu. V. Obukhov and V. S. Roganov. 16(1), 60-3 (Jan. 1973); CPM-7304E0164
- Depolarization of Negative Muons in Monomeric and Polymeric Organic Compounds (T)—A. A. Dzhuraev, V. S. Evseev, Yu. V. Obukhov, V. S. Roganov and N. I. Kholodov. 16(1), 64-6 (Jan. 1973); CPM-7304E0168
- Dzkuya, M. I.—Measurements of Atomic Masses in the Region from Titanium to Iron (E)—R. A. Demirkhanov, V. V. Dorokhov and M. I. Dzkuya. 15(5), 475-8 (Nov. 1972); CPM-7302E0001
- Dzyuba, B. M.—Mechanism of (n,p) and (n, α) Reactions on Light and Medium Nuclei (E/T)—A. E. Savel'ev, I. K. Averianov and B. M. Dzyuba. 15(4), 416-8 (Oct. 1972); CPM-7212D1961
- Dzyublik, A. Ya.—Derivation of Bohr-Mottelson Collective Model Equations on the Basis of the Many-Body Problem Hamiltonian (T)—A. Ya. Dzyublik, V. I. Ovcharenko, A. I. Steshenko and G. F. Filippov. 15(5), 487-92 (Nov. 1972); CPM-7302E0013
- Éliashvili, M. A.—Decays and Chiral Symmetry Breaking (T)—B. A. Magradze, M. N. Tsugulea and M. A. Éliashvili. 15(3), 294-5 (Sep. 1972); CPM-7211A1923
- El-Kamhavi, A. A.—Investigation of Angular Correlations in the Reactions $B^{10}(\alpha, d_1)C^{12}_{4,43}$, $B^{11}(\alpha, t_1)C^{12}_{4,43}$, and $C^{12}(\alpha, \alpha_1\gamma)C^{12}_{4,43}$ (E)—A. A. El-Kamhavi, G. S. Gurevich, N. V. Orlova, A. V. Spasskii, I. B. Teplov and D. A. Shalabaev. 15(3), 241-3 (Sep. 1972); CPM-7211A1870
- Enkovskii, L. L.— $NN \rightarrow 3\pi$ Annihilation in Dual Models (T)—A. I. Bugrii, L. L. Enkovskii and N. A. Kobylinskii. 15(6), 699-701 (Dec. 1972); CPM-7302E0225
- Epifanov, Yu. N.—Ladder Approximation for the Vertex Function of the Nonrenormalizable $\omega\pi\pi$ Interaction (T)—Yu. N. Epifanov and A. T. Filippov. 15(6), 710-3 (Dec. 1972); CPM-7302E0236
- Éramzhyan, R. A.—Neutron Channel in μ^- Capture and Short-Range Nucleon-Nucleon Correlations. The Reaction $\mu^- + He^3H^3 + n + \nu$ (E)—Yu. A. Salganik and R. A. Éramzhyan. 15(3), 287-9 (Sep. 1972); CPM-7211A1916
- Ergakov, V. A.—Study of the Reaction $\pi^- + p \rightarrow n + m\gamma$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163-5 (Aug. 1972); CPM-7210C1424
- Érgashov, É.—Be ^{6} and B ^{9} Levels from (p,n) Reactions (E)—U. R. Arifkhanov, M. Gulyamov, B. I. Islamov and É. Érgashov. 15(6), 610 (Dec. 1972); CPM-7302E0136
- Ermakov, O. N.—P-Odd Interaction in the $Cd^{113}(n,\gamma)Cd^{114}$ Reaction (E)—Yu. G. Abov, M. M. Danilov, O. N. Ermakov, I. L. Karpikhin, V. K. Rissukhin and A. M. Skornyakov. 16(6), 670-3 (Jun. 1973); CPM-7310E1518
- Ermilova, D. I.—Analysis of the Angular and Energy Characteristics of Secondary Particles Produced in Proton-Proton Interactions at 10 BeV/c (E)—Zh. S. Takibaev, M. G. Antonova, É. G. Boos, D. I. Ermilova, L. A. San'ko, T. Temiraliyev and A. V. Kholmetskaya. 15(1), 38-43 (Jul. 1972); CPM-7209C0990
- Evseev, V. S.—Angular Distribution of Low Energy Neutrons from Nuclear μ^- Capture in Sulfur and Calcium (E)—I. Wojtkowska, V. S. Evseev, T. Kozłowski, A. A. Nikolina and V. S. Roganov. 15(5), 523-5 (Nov. 1972); CPM-7302E0049
- Probability of (μ^-, ν) Process on La ^{139} and Pb ^{208} Nuclei (E)—G. G. Bunatyán, L. Vil'gel'mova, V. S. Evseev, L. N. Nikit'yuk, V. N. Pokrovskii, V. N. Rybakov and I. A. Yutlandov. 15(5), 526-7 (Nov. 1972); CPM-7302E0052
- Neutron Energy Spectrum from Absorption of Negative Muons by O, S, Ca, and Pb Nuclei (E)—I. Wojtkowska, V. S. Evseev, T. Kozłowski and V. S. Roganov. 15(6), 639-44 (Dec. 1972); CPM-7302E0165
- Dependence of the Depolarization of Negative Muons on the Molecular Weight and Temperature in Organic Compounds (E)—A. A. Dzhuraev, V. S. Evseev, Yu. V. Obukhov and V. S. Roganov. 16(1), 60-3 (Jan. 1973); CPM-7304E0164
- Depolarization of Negative Muons in Monomeric and Polymeric Organic Compounds (T)—A. A. Dzhuraev, V. S. Evseev, Yu. V. Obukhov, V. S. Roganov and N. I. Kholodov. 16(1), 64-6 (Jan. 1973); CPM-7304E0168
- Ezhov, S. N.—Concerning the Description of Direct (n,2n) Processes in Some Nuclei (T)—S. N. Ezhov and V. S. Ol'khovskii. 16(2), 185-6 (Feb. 1973); CPM-7304E0288

E

- Éch, F. A.—Missing-Mass Spectra Observed in the Reaction $\pi + p \rightarrow p + X^+$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Éch, M. N. Kienzle-Focacci, W. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550-3 (May 1973); CPM-7309D1266
- Éfros, V. D.—K-harmonics Method in the Few-nucleon Problem (T)—V. D. Éfros. 15(2), 128-36 (Aug. 1972); CPM-7210C1389
- Correlated Basis in the Problem of Several Nucleons (T)—Yu. I. Fenin and V. D. Éfros. 15(5), 497-502 (Nov. 1972); CPM-7302E0023
- Eldyshev, Yu. N.—Analysis of Elastic Electron Scattering on Light Nuclei on the Basis of Symmetrized Fermi-Density Distribution (E/T)—Yu. N. Eldyshev, V. N. Lukyanov and Yu. S. Pol. 16(3), 282-6 (Mar. 1973); CPM-7306D0378

F

- Fadeev, N. G.—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, V. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Fadin, V. S.—Pair Production at Large Angles in Colliding-Beam Experiments (T)—V. N. Baier and V. S. Fadin. 15(1), 56-8 (Jul. 1972); CPM-7209C1008
- Faiziev, A. R.—Investigation of the Mirror Reactions (He^3, n) and (He^3, p) on the C^{12} Nucleus (E)—O. D. Brill', A. D. Vongai, K. A. Gridnev and A. R. Faiziev. 16(4), 359-63 (Apr. 1973); CPM-7309D1075

- Fayans, S. A.**—Cross Sections and Spectra of Particles Appearing in Processes with the Participation of Reactor Antineutrinos (T)—L. A. Mikaelyan and S. A. Fayans. 15(5), 543-6 (Nov. 1972); CPM-7302E0069
- Fedorov, A. D.**—The Asymmetric Rigid Rotator Model with Modified Moments of Inertia (T)—A. D. Fedorov. 15(1), 22-3 (Jul. 1972); CPM-7209C0974
- Davydov-Chaban Model Analog (T)—A. D. Fedorov. 15(4), 392-5 (Oct. 1972); CPM-7212D1937
- Rigid Asymmetrical Rotator and Deformability of Nuclei (T)—A. D. Fedorov and V. A. Knyr. 16(4), 376-9 (Apr. 1973); CPM-7309D1092
- Fedorov, O. Ya.**—Polarization of 1000-MeV Protons Scattered by Be, C, Al, and Pb Nuclei (E)—V. G. Vovchenko, A. A. Zhdanov, V. M. Zheleznyakov, O. Ya. Fedorov and A. V. Shvedchikov. 16(6), 628-30 (Jun. 1973); CPM-7310E1476
- Fedorov, V. M.**—Influence of Single Scattering Processes on the Horizontal Fluxes of Cosmic Muons in Water (T)—A. T. Matachun, Yu. A. Trubkin and V. M. Fedorov. 16(2), 191-3 (Feb. 1973); CPM-7304E0294
- Fenin, Yu. I.**—Correlated Basis in the Problem of Several Nucleons (T)—Yu. I. Fenin and V. D. Efros. 15(5), 497-502 (Nov. 1972); CPM-7302E0023
- Filimonov, V. A.**—Ratio of Nonmesonic and π -Decay Probabilities and the Depth of Potential Wells for Λ in Hypernuclei (T)—V. A. Filimonov. 15(2), 189-91 (Aug. 1972); CPM-7210C1450
- Filippov, A. T.**—Ladder Approximation for the Vertex Function of the Nonrenormalizable $\omega\rho\pi$ Interaction (T)—Yu. N. Epifanov and A. T. Filippov. 15(6), 710-3 (Dec. 1972); CPM-7302E0236
- Approximate Methods for Solving the Schrödinger Equation with a Singular Potential (T)—V. Sh. Gogokhiya and A. T. Filippov. 15(6), 714-9 (Dec. 1972); CPM-7302E0240
- Filippov, G. F.**—Derivation of Bohr-Mottelson Collective Model Equations on the Basis of the Many-Body Problem Hamiltonian (T)—A. Ya. Dzyublik, V. I. Ovcharenko, A. I. Steshenko and G. F. Filippov. 15(5), 487-92 (Nov. 1972); CPM-7302E0013
- Flerov, G. N.**—Compound Nucleus Production by Accelerated Xenon Ions (E)—G. N. Flerov, S. A. Karamyan, G. S. Popeko, A. G. Popeko and I. A. Shelaev. 15(6), 618-9 (Dec. 1972); CPM-7302E0144
- Flyagin, V. B.**—Production of Pairs of Λ^0 Hyperons in Interactions of π -Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, Zh. K. Karamyan, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44-6 (Jul. 1972); CPM-7209C0996
- Investigation of the Reactions $\pi p \rightarrow \pi^+ \pi^- + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Khazhchev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Folomeshkin, V. N.**—On the Problem of Heavy Leptons (T)—S. S. Gershtein, L. G. Landsberg and V. N. Folomeshkin. 15(2), 195-7 (Aug. 1972); CPM-7210C1456
- Empirical Formula for Pion and Kaon Spectra in pp Interactions (T)—V. N. Folomeshkin. 15(2), 214-8 (Aug. 1972); CPM-7210C1475
- Multifermion Interactions (T)—S. S. Gershtein and V. N. Folomeshkin. 15(3), 296-9 (Sep. 1972); CPM-7211A1925
- Fomin, Yu. A.**—Increase in the Transverse Momenta in Nuclear Interactions at Energies $\geq 10^{12}$ eV from EAS Data (E)—Yu. A. Fomin and G. B. Khristiansen. 15(4), 423-6 (Oct. 1972); CPM-7212D1968
- Foursat, A. D.**—Two-Particle Electrodissintegration of He^3 (T)—I. V. Kozlovskii, V. K. Tartakovskii and A. D. Foursat. 16(3), 277-81 (Mar. 1973); CPM-7306D0373
- Fradkin, E. S.**—Quantization of Massive Gravitation (T)—I. V. Tyutin and E. S. Fradkin. 15(3), 331-4 (Sep. 1972); CPM-7211A1960
- The Theory of a Neutral Gauge Field with Spontaneous Symmetry Breaking (T)—I. V. Tyutin and E. S. Fradkin. 16(4), 464-72 (Apr. 1973); CPM-7309D1180
- Frank, I. M.**—Optical Radiation Excited by Nonrelativistic Charged Particles at Metal Surfaces (E)—A. P. Kobzev, S. Michalak, E. Rutkowski and I. M. Frank. 15(2), 184-8 (Aug. 1972); CPM-7210C1445
- Angular Distributions of 13.7-MeV Neutrons Elastically Scattered by the Isotopes $\text{Pb}^{206,207,208}$ (E)—G. E. Belovitskii, L. N. Kolesnikova and I. M. Frank. 15(4), 369-71 (Oct. 1972); CPM-7212D1914
- Inelastic Scattering of 13.7 MeV Neutrons by Lead Isotopes (E)—G. E. Belovitskii, L. N. Kolesnikova and I. M. Frank. 15(4), 372-4 (Oct. 1972); CPM-7212D1917
- Franke, V. A.**—Analysis of a Dual Fermion Model (T)—S. N. Manida and V. A. Franke. 16(4), 429-32 (Apr. 1973); CPM-7309D1145
- Frankfurt, L. L.**—Derivation of the Adler and Cabibbo-Radicati Sum Rules and Calculation of the Asymptotics of the Difference between the Cross Sections for the Scattering of Neutrinos and Anti-Neutrinos on Polarized Hadrons (T)—L. L. Frankfurt. 16(6), 690-4 (Jun. 1973); CPM-7310E1538
- Electromagnetic Corrections to the Weak Hadron Form Factor (T)—L. L. Frankfurt. 16(6), 695-9 (Jun. 1973); CPM-7310E1543
- Funshtein, V. B.**—Search for Fission Isomers in the Radium Region (E)—I. M. Kuks, V. I. Matvienko, Yu. A. Nemilov, Yu. A. Selitskii and V. B. Funshtein. 16(2), 244(L) (Feb. 1973); CPM-7304E0347
- Fursaev, A. V.**—Dependence of the Electro-Excitation Cross Section of Some Light Nuclei on the Choice of the Coupling Scheme (T)—V. K. Tartakovskii and A. V. Fursaev. 15(1), 31-3 (Jul. 1972); CPM-7209C0983

G

- Gai, E. V.**—E2 Transition Probabilities in the Asymmetric Rigid Rotor Model (T)—E. V. Gai and N. S. Rabotnov. 15(4), 396-8 (Oct. 1972); CPM-7212D1941
- Probabilities of E2 Transitions and Mean Values of Quadrupole Moments of High Spin States in the Asymmetric Top Model (T)—E. V. Gai and N. S. Rabotnov. 16(2), 159-61 (Feb. 1973); CPM-7304E0262
- Construction of Physical Bases for the Groups $O(5)$ and $SU(3)$ with Automatic Performance of Symbolic Transformations (T)—V. N. Vinogradov, E. V. Gai, S. I. Popov, N. S. Rabotnov and I. B. Shchenkov. 16(6), 647-52 (Jun. 1973); CPM-7310E1495
- Gaisak, M. I.**—Baryons and Pseudoscalar Mesons in Broken, Nonlinear Chiral $SU(3) \times SU(3)$ Dynamics (T)—M. I. Gaisak and V. Ya. Sabo. 16(1), 109-11 (Jan. 1973); CPM-7304E0213
- Gal'pern, E. S.**—The Hilbert-Schmidt Expansion for Three-Particle Amplitudes (T)—I. M. Narodetskii, E. S. Gal'pern and V. N. Lyakhovitskii. 16(4), 395-9 (Apr. 1973); CPM-7309D1111
- Gamali, A. F.**—Gamma Radiation in Intermediate Neutron Radioactive Capture (E)—A. F. Gamali, B. V. Zemtsev, V. B. Ivanov, B. V. Nesterov and L. P. Kham'yanov. 15(1), 1-4 (Jul. 1972); CPM-7209C0953
- Ganenko, V. B.**—Study of (γ, T) Reactions in Nuclei with Bremsstrahlung Energies up to 1200 MeV (E)—Yu. P. Antuf'ev, V. L. Agranovich, V. B. Ganenko, V. S. Kuz'menko, I. I. Miroshnichenko, P. V. Sorokin and S. V. Shalatskii. 15(4), 357-60 (Oct. 1972); CPM-7212D1902
- Gangrskii, Yu. P.**—Measurement of the Excitation Energy of the Spontaneously Fissioning Isomer $\text{Pu}^{239}(\gamma, n)$ (E)—Yu. P. Gangrskii, V. N. Markov, I. F. Kharisov and Yu. M. Tsipenyuk. 16(2), 151-4 (Feb. 1973); CPM-7304E0254
- Excitation Energies of the Spontaneously Fissile Isomers of Pu^{240} , Cm^{241} , and Bk^{243} in Reactions with α Particles (E)—I. Vylkov, N. Vylkov, Yu. P. Gangrskii, M. Marinescu, A. A. Pleva, D. Poenaru and I. F. Kharisov. 16(3), 253-6 (Mar. 1973); CPM-7306D0349
- Gaponov, Yu. V.**—Isobaric Configuration 0⁺ States, Proton-Neutron Hole in a Spherical Nucleus (T)—Yu. V. Gaponov and Yu. S. Lyutostanskii. 16(3), 270-6 (Mar. 1973); CPM-7306D0366
- Gasparyan, A. P.**—Analysis of the $np\text{-}pp\pi$ Reaction from the Point of View of a Reggeized OPE Model (E)—K. G. Borekov, A. P. Gasparyan, A. B. Kaidalov, A. V. Nikitin, Yu. A. Troyan and L. A. Ponomarev. 15(3), 309-13 (Sep. 1972); CPM-7211A1938
- Gavrilov, K. A.**—Production of Gold Isotopes in Bombardment of U^{238} by Xe^{136} Ions (E)—Yu. Ts. Oganessian, O. A. Orlova, Yu. E. Penionzhkevich, K. A. Gavrilov and Kim De Yen. 16(2), 138-9 (Feb. 1973); CPM-7304E0241
- Gedalin, E. V.**—Dual Resonance Model for Non-Identical Regge Trajectories: N-Reggeon Vertex (T)—E. V. Gedalin. 15(1), 83-6 (Jul. 1972); CPM-7209C1035
- Geilikman, B. T.**—Asymmetry of Nuclear Fission with Allowance for Quantum Effects (T)—B. T. Geilikman and O. V. Zimina. 15(3), 256-9 (Sep. 1972); CPM-7211A1885

- Gendenshtein, L. É.**—Inclusive Production of Particles and Antiparticles in the Central Region of the Spectrum and Resonant πN Scattering (T/E)—L. É. Gendenshtein and A. B. Kaidalov. 16(6), 720-3 (Jun. 1973); CPM-7310E1568
- Genina, L. É.**—Determination of the Spin-Parity of the $X^0(960)$ Meson in Proton-Antiproton Annihilation at Rest (E)—L. É. Genina, A. N. Zaslavskii and R. Lednicky. 15(5), 571-3 (Nov. 1972); CPM-7302E0097
- Gershtein, S. S.**—On the Problem of Heavy Leptons (T)—S. S. Gershtein, L. G. Landsberg and V. N. Folomeshkin. 15(2), 195-7 (Aug. 1972); CPM-7210C1456
- Multifermion Interactions (T)—S. S. Gershtein and V. N. Folomeshkin. 15(3), 296-9 (Sep. 1972); CPM-7211A1925
- Geshkenbein, V. B.**—Certain Implications of Microcausality for the Matrix Element $\langle p|[A(x)B(0)]p \rangle$ of the Commutator (T)—V. B. Geshkenbein. 16(3), 340-2 (Mar. 1973); CPM-7306D0436
- Gevorkyan, S. R.**—Double Charge Exchange of π Mesons on Nuclei at High Energies (T)—S. R. Gevorkyan, A. V. Tarasov and Ch. Tséren. 15(1), 34-7 (Jul. 1972); CPM-7209C0986
- Noncoherent Photoproduction of Vector Mesons on Nuclei at Large Momentum Transfers (T)—S. R. Gevorkyan and A. V. Tarasov. 15(2), 141-2 (Aug. 1972); CPM-7210C1402
- Radiation Corrections to the πp Scattering Cross Section at Small Angles with Detection of the Recoil Proton (T)—A. P. Vanzha, S. R. Gevorkyan and A. V. Tarasov. 16(2), 199-200 (Feb. 1973); CPM-7304E0302
- Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekchina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412-6 (Apr. 1973); CPM-7309D1128
- Ginzburg, I. F.**—Applicability of the Weizsäcker-Williams Approximation to Two-Photon Particle Production (T)—V. M. Budnev, I. F. Ginzburg, G. V. Medelin and V. G. Serbo. 16(2), 201-3 (Feb. 1973); CPM-7304E0304
- Gladkikh, Z. S.**—Cross Sections for Neutron-Induced Fission of Th^{228} (E)—P. E. Vorotnikov, Z. S. Gladkikh, A. V. Davydov, S. M. Dubrovina, G. A. Otroshchenko, E. S. Pal'shin, V. A. Shigin and V. M. Shubko. 16(5), 505-6 (May 1973); CPM-7309D1221
- Gogokhiya, V. Sh.**—Approximate Methods for Solving the Schrödinger Equation with a Singular Potential (T)—V. Sh. Gogokhiya and A. T. Filippov. 15(6), 714-9 (Dec. 1972); CPM-7302E0240
- Gokhberg, B. M.**— Cf^{259} Fission Cross Section in the Neutron Energy Range 0.16-1.6 MeV (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, V. N. Kosyakov, G. A. Otroshchenko, L. V. Chistyakov, V. A. Shigin and V. M. Shubko. 15(1), 20-1 (Jul. 1972); CPM-7209C0972
- Angular Distributions of Fragments in Neutron-Induced Fission of Cf^{249} (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, G. A. Otroshchenko and V. A. Shigin. 16(4), 372-3 (Apr. 1973); CPM-7309D1088
- Gol'dberg, M. P.**—Analysis of the Proton Spectrum from the $\text{D}(n,p)2n$ Reaction (E)—B. G. Skorodumov, M. P. Gol'dberg and Yu. N. Talanin. 15(3), 234-8 (Sep. 1972); CPM-7211A1863
- Goloskokov, S. V.**—Asymptotic Estimates of the Quasipotential Parameters (T)—S. V. Goloskokov and V. A. Matveev. 16(6), 715-7 (Jun. 1973); CPM-7310E1563
- Golovanov, L. B.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Golovin, B. M.**—Rescattering Effects in the pd - ppn Reaction (T)—B. M. Golovin, G. I. Lykasov, A. M. Rozanova and A. V. Tarasov. 16(5), 602-4 (May 1973); CPM-7309D1318
- Golovkov, N. A.**—Splitting of the 5793 keV Doublet in the $\text{Ac}^{225} \alpha$ Spectrum (E)—N. A. Golovkov, B. S. Dzhelepov, R. B. Ivanov, M. A. Mikhailova and V. G. Chumlin. 15(4), 349 (Oct. 1972); CPM-7212D1894
- Golubchikov, V. M.**—Study of the Reaction $\pi^+ + p \rightarrow n + \mu^+$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163-5 (Aug. 1972); CPM-7210C1424
- Golutvin, I. A.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Goncharova, N. G.**—Influence of the Fractional Parentage Structure of the Ground State on the Photodisintegration of Light Nuclei (T)—N. G. Goncharova. 15(2), 137-40 (Aug. 1972); CPM-7210C1398
- Gorbatov, A. M.**—Use of the K-Harmonics Method for Spin-Orbit Splitting Calculations of Light Nuclei (T)—A. I. Baz', A. M. Gorbatov, V. F. Demin, Yu. E. Pokrovskii and Yu. K. Rogov. 16(2), 179-81 (Feb. 1973); CPM-7304E0282
- Generalized Method of Harmonic Polynomials (T)—A. M. Gorbatov. 16(4), 391-4 (Apr. 1973); CPM-7309D1107
- Gorin, Yu. P.**—Total Cross Sections of the π^+p and π^+d Interactions in the Momentum Region 15-60 GeV/c and the Glauber Correction (E)—Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. I. Petrukhin, Yu. D. Prokoshkin and D. A. Stoyanova. 15(5), 530-3 (Nov. 1972); CPM-7302E0056
- Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnain, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674-7 (Jun. 1973); CPM-7310E1522
- Govor, L. L.**— Sr^{87} and Zr^{93} Fluorescence after the Capture of Thermal Neutrons (E)—L. V. Groshev, L. I. Govor and A. M. Demidov. 15(4), 347-8 (Oct. 1972); CPM-7212D1892
- Govorun, N. N.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Granovskii, Ya. I.**—Multipole Expansion of Lamb Shift (T)—Ya. I. Granovskii. 15(2), 192-4 (Aug. 1972); CPM-7210C1453
- Grib, A. A.**—Broken Symmetry in the K^0 -Meson Theory and the Goldstone Theorem (T)—A. A. Grib and V. N. Mostepanenko. 15(3), 290-3 (Sep. 1972); CPM-7211A1919
- Gribov, V. N.**—Deep Inelastic πp Scattering in Perturbation Theory (T)—V. N. Gribov and L. N. Lipatov. 15(4), 438-50 (Oct. 1972); CPM-7212D1983
- e^+e^- Pair Annihilation and Deep Inelastic πp Scattering in Perturbation Theory (T)—V. N. Gribov and L. N. Lipatov. 15(6), 675-84 (Dec. 1972); CPM-7302E0201
- Gridnev, K. A.**—Examination of Distorted Wave Method for Stripping Reactions to Resonant States (T)—V. E. Bunakov, K. A. Gridnev and L. V. Krasnov. 15(5), 508-12 (Nov. 1972); CPM-7302E0034
- Investigation of the Mirror Reactions (He^3, n) and (He^3, p) on the C^{12} Nucleus (E)—O. D. Brill', A. D. Vongai, K. A. Gridnev and A. R. Faiziev. 16(4), 359-63 (Apr. 1973); CPM-7309D1075
- Grigalashvili, T. S.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060

- Grigoryan, G. V.**—Electromagnetic Interaction of the Muon and the $K_L \rightarrow 2\mu$ Decay (T)—G. V. Grigoryan, N. N. Nikolaev and L. B. Okun'. 15(5), 554-5 (Nov. 1972); CPM-7302E0080
- Polarization Effects in Weak Interactions of Colliding e^+e^- and e^-e^- Beams at High Energies (T)—G. V. Grigoryan and V. A. Khoze. 16(5), 592-6 (May 1973); CPM-7309D1308
- Grishanova, S. I.**—Partial Widths and Strong Coupling of Channels (T)—S. I. Grishanova, S. D. Niledvin, N. N. Titarenko and E. L. Yadvorskii. 15(3), 264-5 (Sep. 1972); CPM-7211A1893
- Grishin, V. G.**—Note Concerning the Symmetry of the Spectrum of the Longitudinal Pion Momenta in Semi-Inclusive $\pi\pi$ Interactions at $p=4$ GeV/c (E)—V. G. Grishin, Sh. V. Inogamov, B. S. Yuldashev and G. Jancso. 16(5), 611-2 (May 1973); CPM-7309D1327
- Groshev, L. V.**— Sr^{87} and Zr^{93} Fluorescence after the Capture of Thermal Neutrons (E)—L. V. Groshev, L. I. Govor and A. M. Demidov. 15(4), 347-8 (Oct. 1972); CPM-7212D1892
- De-Excitation of Even-Odd Nuclei in the Range $91 \leq N \leq 113$ After Capturing Thermal Neutrons (T)—L. V. Groshev, A. M. Demidov and L. L. Sokolovskii. 16(3), 245-8 (Mar. 1973); CPM-7306D0341
- Gubkin, I. A.**—Proton Polarization in Coulomb Stripping Reactions (T)—I. A. Gubkin. 15(5), 513-4 (Nov. 1972); CPM-7302E0039
- Gulkanyan, G. P.**—Formation of B^8 in Capture of Stopped π^- Mesons by Nitrogen Nuclei (E)—N. M. Agababyan, Yu. A. Batusov, S. A. Bunyatov, G. P. Gulkanyan, V. M. Sidorov and V. A. Yarba. 15(1), 10-1 (Jul. 1972); CPM-7209C0962
- Gul'karov, I. S.**—Form Factors and Transition Densities of the Quadrupole and Octupole Vibrations of the C^{12} Nucleus (T)—I. S. Gul'karov. 16(4), 386-90 (Apr. 1973); CPM-7309D1102
- Gulyamov, M.**— Be^8 and B^9 Levels from (p,n) Reactions (E)—U. R. Arifkhanov, M. Gulyamov, B. I. Islamov and E. Érgashov. 15(6), 610 (Dec. 1972); CPM-7302E0136
- Gurevich, G. S.**—Investigation of Angular Correlations in the Reactions $B^{10}(\alpha, d_1)C^{12}_{4,4,3}$, $B^{11}(\alpha, t_1)C^{12}_{4,4,3}$, and $C^{12}(\alpha, \alpha_1)C^{12}_{4,4,3}$ (E)—A. A. El-Kamhavi, G. S. Gurevich, N. V. Orlova, A. V. Spasskii, I. B. Teplov and D. A. Shalabaev. 15(3), 241-3 (Sep. 1972); CPM-7211A1870
- Gurtovoi, M. E.**—Excitation of Collective States of Some Medium Nuclei by 14-MeV Neutrons (E)—B. E. Leshchenko, M. E. Gurtovoi, A. S. Kukhlenko and V. I. Strizhak. 15(1), 5-9 (Jul. 1972); CPM-7209C0957
- Gus'kov, B. N.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Guzhavin, V. M.**—Absorptive Model and the Reactions $\pi\pi \rightarrow \rho\rho$ and $\pi\rho \rightarrow \rho^n$ at a Momentum 3.25 GeV/c (T)—V. M. Guzhavin and M. S. Dubovikov. 16(2), 229-31 (Feb. 1973); CPM-7304E0332
- Absorption Model and Spin Parity of the B Meson (T)—V. M. Guzhavin and M. S. Dubovikov. 16(3), 320-2 (Mar. 1973); CPM-7306D0416
- Guzhavin, V. N.**—Investigation of the Reaction $\pi\pi \rightarrow \rho\rho$ and $\pi\rho \rightarrow \rho^n$ at Incident Momentum 3-8 GeV/c by the Complex Angular Momentum Method (E)—V. N. Guzhavin, A. B. Kaidalov and A. F. Nilov. 15(1), 93-6 (Jul. 1972); CPM-7209C1045
- One More Version of the Absorptive One Pion Exchange Model (T)—V. N. Guzhavin and N. S. Dubovikov. 15(2), 198-202 (Aug. 1972); CPM-7210C1459
- Guzhavin, V. V.**—Angular and Spatial Distributions of Particles of Electron-Photon Shower Particles (T)—V. V. Guzhavin, I. P. Ivanenko, A. A. Kirillov and Yu. P. Paskhalov. 15(3), 278-81 (Sep. 1972); CPM-7211A1907
- Lateral Distribution of Electrons in an Inhomogeneous Atmosphere (T)—V. V. Guzhavin, I. P. Ivanenko and Yu. I. Paskhalov. 16(4), 417-20 (Apr. 1973); CPM-7309D1133
- Guzhovskii, B. Ya.**—Levels and γ Transitions in Cu^{64} from the Reaction $Ni^{64}(p, n)\gamma Cu^{64}$ (E)—B. Ya. Guzhovskii, S. N. Abramovich, A. G. Zvenigorodskii and S. V. Trusillo. 16(2), 123-6 (Feb. 1973); CPM-7304E0226
- Hubert, W.**—Cascade Curves and Fluctuations of Average Characteristics of the Development of Showers Produced by 1600-MeV γ Quanta in Liquid Xenon (E)—B. Slowinski, Z. Strugalski and W. Hubert. 16(4), 410-1 (Apr. 1973); CPM-7309D1126
- Hussein, F. A.**—Radiation of p-Levels of Even-Odd Nuclei with $21 \leq A \leq 41$ in Cascade Emission Following Capture of Thermal Neutrons (E)—A. M. Demidov, J. D. Jafar, M. A. Khalil and F. A. Hussein. 16(1), 1-5 (Jan. 1973); CPM-7304E0105
- Ignatyuk, A. V.**—Structure of the One-Particle Spectrum and Energy Dependence of Γ_1/Γ_0 (T)—A. V. Ignatyuk, G. N. Smirenkin and A. S. Tishin. 15(6), 622-5 (Dec. 1972); CPM-7302E0148
- Density of Excited Particle Hole States in the Shell Model (E)—A. V. Ignatyuk and Yu. V. Sokolov. 16(2), 155-8 (Feb. 1973); CPM-7304E0258
- Il'inov, A. S.**—Angular Distribution of Neutrons Produced by Irradiating Ge, Mo, Ag, and Pr Targets with Heavy Ions of C, O, Ne, and Ar (E)—A. S. Il'inov, S. A. Karamyan, Tack An Nguyen and K. N. Sharifov. 16(3), 260-2 (Mar. 1973); CPM-7306D0356
- Inogamov, Sh. V.**—Note Concerning the Symmetry of the Spectrum of the Longitudinal Pion Momenta in Semi-Inclusive $\pi\pi$ Interactions at $p=4$ GeV/c (E)—V. G. Grishin, Sh. V. Inogamov, B. S. Yuldashev and G. Jancso. 16(5), 611-2 (May 1973); CPM-7309D1327
- Inopin, E. V.**—Elastic and Inelastic Glauber Scattering of Protons by C^{12} in the α -Particle Model (T)—A. N. Antonov and E. V. Inopin. 16(1), 38-41 (Jan. 1973); CPM-7304E0142
- Excitation of Nuclear Vibrational Levels by Electrons According to the α -Particle Model (T)—A. N. Antonov and E. V. Inopin. 16(2), 182-4 (Feb. 1973); CPM-7304E0285
- Ioffe, B. L.**—Erratum: Neutral Currents and the Limit of Validity of the Theory of Weak Interactions [6, 603 (4)] (T)—B. L. Ioffe and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Isaev, P. S.**—The Reaction $\gamma + \gamma \rightarrow \pi + \pi$ and the Pion Electromagnetic Mass Difference (T)—P. S. Isaev and V. I. Khleskov. 16(5), 559-64 (May 1973); CPM-7309D1275
- Islamov, B. I.**— Be^8 and B^9 Levels from (p,n) Reactions (E)—U. R. Arifkhanov, M. Gulyamov, B. I. Islamov and E. Érgashov. 15(6), 610 (Dec. 1972); CPM-7302E0136
- Israeliyan, M. Kh.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekchina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412-6 (Apr. 1973); CPM-7309D1128
- Istakov, Ts. G.**—On the Decay Mode $\mu^+ \rightarrow e^+ \nu_e \bar{\nu}_\mu e^+$ (T)—D. Yu. Bardin, Ts. G. Istakov and G. B. Mitsel'makher. 15(2), 161-2 (Aug. 1972); CPM-7210C1422
- Itkis, M. G.**— Po^{210} Fission in $Pb^{206}(\alpha, f)$ Reaction (E)—M. G. Itkis, K. G. Kuvatov, V. N. Okolovich, G. Ya. Ruskina, G. N. Smirenkin and A. S. Tishin. 16(2), 144-50 (Feb. 1973); CPM-7304E0247
- Study of Phase Transition in the Density of the Excited States of Even-Even Pb Nuclei in the (α, f) Reaction (E)—V. N. Okolovich, M. G. Itkis, K. G. Kuvatov and G. N. Smirenkin. 16(6), 631-3 (Jun. 1973); CPM-7310E1479
- Ivanchenko, I. M.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Ivanenko, I. P.**—Angular and Spatial Distributions of Particles of Electron-Photon Shower Particles (T)—V. V. Guzhavin, I. P. Ivanenko, A. A. Kirillov and Yu. P. Paskhalov. 15(3), 278-81 (Sep. 1972); CPM-7211A1907

- Lateral Distribution of Electrons in an Inhomogeneous Atmosphere (T)—V. V. Guzhavin, I. P. Ivanenko and Yu. I. Paskhalov. 16(4), 417–20 (Apr. 1973); CPM-7309D1133
- Ivanov, A. N.—Calculation of the Electromagnetic Mass Difference of Pions in Chiral Dynamics (T)—A. N. Ivanov. 15(1), 64–70 (Jul. 1972); CPM-7209C1016
- Ivanov, O. I.—Angular Measurements of γ -Radiation Yield in Ternary Fission of Cf^{252} (E)—O. I. Ivanov. 15(6), 620–1 (Dec. 1972); CPM-7302E0146
- Ivanov, R. B.—Splitting of the 5793 keV Doublet in the Ac^{225} α Spectrum (E)—N. A. Golovkov, B. S. Dzhelepov, R. B. Ivanov, M. A. Mikhailova and V. G. Chumin. 15(4), 349 (Oct. 1972); CPM-7212D1894
- Ivanov, V. B.—Gamma Radiation in Intermediate Neutron Radioactive Capture (E)—A. F. Gamalii, B. V. Zemtsev, V. B. Ivanov, B. V. Nesterov and L. P. Kham'yanov. 15(1), 1–4 (Jul. 1972); CPM-7209C0953
- Ivanova, S. P.—Excitation of 0^+ States in Two-Nucleon Transfer Reactions (E)—S. K. Abdulvagabova, S. P. Ivanova and N. I. Pyatov. 16(6), 665–9 (Jun. 1973); CPM-7310E1513

J

- Jafar, J. D.—Radiation of p-Levels of Even-Odd Nuclei with $21 \leq A \leq 41$ in Cascade Emission Following Capture of Thermal Neutrons (E)—A. M. Demidov, J. D. Jafar, M. A. Khalil and F. A. Hussein. 16(1), 1–5 (Jan. 1973); CPM-7304E0105
- Jancso, G.—Note Concerning the Symmetry of the Spectrum of the Longitudinal Pion Momenta in Semi-Inclusive $\pi\pi$ Interactions at $p=4$ GeV/c (E)—V. G. Grishin, Sh. V. Inogamov, B. S. Yuldashev and G. Jancso. 16(5), 611–2 (May 1973); CPM-7309D1327
- Jankauskas, K.—Calculation of Nuclear Deformation of the $\text{U}(3(\text{A}-1))$ Scheme Model (T)—A. Petrauskas, G. Kamuntavicius and K. Jankauskas. 16(2), 168–72 (Feb. 1973); CPM-7304E0271

K

- Kabachnik, N. M.—Knock-Out Reactions in Quasielastic and Antiquasielastic Kinematics (T)—V. V. Balashov, N. M. Kabachnik and N. N. Titarenko. 16(5), 622(L) (May 1973); CPM-7309D1338
- Kadmenskii, S. G.—Absolute Probabilities of the α Decay of Even-Even Nuclei with $174 \leq A \leq 232$ and Superfluidity (T)—S. G. Kadmenskii, V. E. Kalechits and A. A. Martynov. 16(4), 400–4 (Apr. 1973); CPM-7309D1116
- Kafiev, Yu. H.—Dynamic Model for the 33 Phase Shift of πN Scattering (T)—A. N. Vall, Yu. H. Kafiev and V. V. Serebryakov. 16(1), 106–8 (Jan. 1973); CPM-7304E0210
- Kaganovich, A. B.—Current Algebra and the Problem of Cancellation of the Divergences in the Isotopic $\Delta T=2$ Mass Differences (T)—A. B. Kaganovich. 15(5), 561–4 (Nov. 1972); CPM-7302E0087
- Dynamical Chiral Symmetry and Cancellation of Divergences in the Mass Differences of Members of the A_1 , ρ and π Meson Isomultiplets (T)—A. B. Kaganovich. 15(6), 691–5 (Dec. 1972); CPM-7302E0217
- Kaidalov, A. B.—Investigation of the Reaction $\pi p \rightarrow \pi p$ and $\pi p \rightarrow p^0 n$ at Incident Momentum 3–8 GeV/c by the Complex Angular Momentum Method (E)—V. N. Guzhavin, A. B. Kaidalov and A. F. Nilov. 15(1), 93–6 (Jul. 1972); CPM-7209C1045
- Model of Reggeized One-Pion Exchange and the $pp \rightarrow pn\pi^+$ Reaction (T)—K. G. Boreskov, A. B. Kaidalov, V. I. Lysin, E. S. Nikolaevskii and L. A. Ponomarev. 15(2), 203–8 (Aug. 1972); CPM-7210C1464
- Analysis of the $np \rightarrow pp\pi^-$ Reaction from the Point of View of a Reggeized OPE Model (E)—K. G. Boreskov, A. P. Gasparian, A. B. Kaidalov, A. V. Nikitin, Yu. A. Troyan and L. A. Ponomarev. 15(3), 309–13 (Sep. 1972); CPM-7211A1938
- Connection between the Total Interaction Cross Section and the Slope of the Diffraction Peak (T)—A. B. Kaidalov. 16(2), 217–9 (Feb. 1973); CPM-7304E0320
- Inclusive Production of Particles and Antiparticles in the Central Region of the Spectrum and Resonant πN Scattering (T/E)—L. E. Gendenshtein and A. B. Kaidalov. 16(6), 720–3 (Jun. 1973); CPM-7310E1568
- Kaipov, D. K.—Lifetime of the 2.734-MeV Level of Sr^{88} (E)—D. K. Kaipov, Yu. G. Kosyak, L. N. Smirin and Yu. K. Subnyi. 15(6), 603–4 (Dec. 1972); CPM-7302E0129
- Kalashnikov, N. P.—Scattering of Fast Particles by an Effectively Growing Potential (T)—N. P. Kalashnikov and V. D. Mur. 16(5), 613–6 (May 1973); CPM-7309D1329
- Kalchenko, A. I.—Level Density of Compound Nuclei with $A=130$ –200 and Other Nuclear Properties (E)—V. P. Vertebnyi, A. I. Kalchenko and M. V. Pasechnik. 16(1), 19–20 (Jan. 1973); CPM-7304E0123
- Kalechits, V. E.—Absolute Probabilities of the α Decay of Even-Even Nuclei with $174 \leq A \leq 232$ and Superfluidity (T)—S. G. Kadmenskii, V. E. Kalechits and A. A. Martynov. 16(4), 400–4 (Apr. 1973); CPM-7309D1116
- Kalinauskas, R. A.—Ratios of the Internal Conversion Coefficients for M4 Transitions in the Nuclei $\text{Te}^{121,123,125,127,129}$ (E)—R. A. Kalinauskas, K. V. Makaryunas and R. I. Davidonis. 15(4), 350–1 (Oct. 1972); CPM-7212D1895
- Kalpakchieva, R.—Lifetimes of the Rotational Levels of Yb^{164} Measured by the Doppler Effect in the Recoil Nuclei (E)—B. Bochev, S. A. Karamyan, T. Kutsarova, Ya. Ukhrein, E. Nadzhakov, Ts. Venkova and R. Kalpakchieva. 16(4), 355–8 (Apr. 1973); CPM-7309D1071
- Kamanin, V. V.—Measurement of Compound-Nucleus Lifetime by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, A. M. Kucher, F. Normuratov and Yu. Ts. Oganessian. 16(2), 140–3 (Feb. 1973); CPM-7304E0243
- Lifetimes of Excited Compound Nuclei in the Range $79 < Z < 89$, Measured by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, F. Normuratov and S. P. Tret'yakova. 16(3), 249–52 (Mar. 1973); CPM-7306D0345
- Kamerdzhev, S. P.—E1 and E2 Transitions in Medium and Heavy Spherical Nuclei (E)—S. P. Kamerdzhev. 15(4), 379–86 (Oct. 1972); CPM-7212D1924
- Kamuntavicius, G.—Calculation of Nuclear Deformation of the $\text{U}(3(\text{A}-1))$ Scheme Model (T)—A. Petrauskas, G. Kamuntavicius and K. Jankauskas. 16(2), 168–72 (Feb. 1973); CPM-7304E0271
- Kanashevich, V. I.—Nuclear Reactions Produced by α Particles on Co^{59} Nuclei (E)—O. A. Zhukova, V. I. Kanashevich, S. V. Laptev and G. P. Chursin. 16(2), 134–7 (Feb. 1973); CPM-7304E0237
- Karabanov, N. V.—The (α, t) Reaction in Li^7 and B^{11} (E)—O. I. Vasil'eva, N. V. Karabanov, V. M. Lebedev, A. V. Spasskii and I. B. Teplov. 16(3), 257–9 (Mar. 1973); CPM-7306D0353
- Karamyan, S. A.—Energy Balance in Fission by Heavy Ions (E)—S. A. Karamyan, Tak An Nguyen and K. N. Sharifov. 15(3), 244–8 (Sep. 1972); CPM-7211A1873
- Compound Nucleus Production by Accelerated Xenon Ions (E)—G. N. Flerov, S. A. Karamyan, G. S. Popeko, A. G. Popeko and I. A. Shelaev. 15(6), 618–9 (Dec. 1972); CPM-7302E0144
- Measurement of Compound-Nucleus Lifetime by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, A. M. Kucher, F. Normuratov and Yu. Ts. Oganessian. 16(2), 140–3 (Feb. 1973); CPM-7304E0243
- Lifetimes of Excited Compound Nuclei in the Range $79 < Z < 89$, Measured by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, F. Normuratov and S. P. Tret'yakova. 16(3), 249–52 (Mar. 1973); CPM-7306D0345
- Angular Distribution of Neutrons Produced by Irradiating Ge, Mo, Ag, and Pr Targets with Heavy Ions of C, O, Ne, and Ar (E)—A. S. Il'inov, S. A. Karamyan, Tak An Nguyen and K. N. Sharifov. 16(3), 260–2 (Mar. 1973); CPM-7306D0356
- Lifetimes of the Rotational Levels of Yb^{164} Measured by the Doppler Effect in the Recoil Nuclei (E)—B. Bochev, S. A. Karamyan, T. Kutsarova, Ya. Ukhrein, E. Nadzhakov, Ts. Venkova and R. Kalpakchieva. 16(4), 355–8 (Apr. 1973); CPM-7309D1071
- Karamyan, Zh. K.—Production of Pairs of Λ^0 Hyperons in Interactions of π^- Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, Zh. K. Karamyan, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44–6 (Jul. 1972); CPM-7209C0996
- Karnauchov, V. A.—Experiments Aimed at Finding Proton Decay from the Ground State (E)—D. D. Bogdanov, V. P. Bochinn, V. A. Karnauchov and L. A. Petrov. 16(5), 491–6 (May 1973); CPM-7309D1207
- Karpikhin, I. L.—P-Odd Interaction in the $\text{Cd}^{113}(\text{n}, \gamma)\text{Cd}^{114}$ Reaction (E)—Yu. G. Abov, M. M. Danilov, O. N. Ermakov, I. L. Karpikhin, V. K. Rissukhin and A. M. Skorniyakov. 16(6), 670–3 (Jun. 1973); CPM-7310E1518

- Kartamyshev, A. A.**—The Reaction $\pi p \rightarrow \pi^+ n$ at $p_\pi = 4.45$ BeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, M. M. Sulkovskaya and A. F. Sustavov. 15(2), 166-8 (Aug. 1972); CPM-7210C1427
- $\pi p \rightarrow \pi^+ \pi^0 p$ Reaction at $p_\pi = 4.45$ GeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, V. A. Suetin, M. M. Sulkovskaya and A. F. Sustavov. 16(3), 298-9 (Mar. 1973); CPM-7306D0394
- Karzhavina, E. N.**—Neutron Resonances of Sm Isotopes (E)—E. N. Karzhavina and A. B. Popov. 15(3), 225-7 (Sep. 1972); CPM-7211A1854
- Kasilov, V. I.**—Photofission and Photofragmentation of Tantalum (E)—V. I. Kasilov, A. V. Mitrofanova, Yu. N. Ranyuk and P. V. Sorokin. 15(3), 228-31 (Sep. 1972); CPM-7211A1857
- Anisotropy in the Angular Distribution of Fragments from Photofission at High Energies (E)—N. A. Demekhina, V. I. Kasilov, A. V. Mitrofanova, Yu. N. Ranyuk and P. V. Sorokin. 16(5), 502-4 (May 1973); CPM-7309D1218
- Katkov, V. M.**—Erratum: Higher-order Effects in External Field: Pair Production by a Particle [14, 572 (5)] (T)—V. N. Baier, V. M. Katkov and V. M. Strakhovenko. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Kazanskaya, A. P.**—Production of Fast Helium and Triton Nuclei in an Interaction of High-Energy Pions with Heavy Emulsion Nuclei (E)—A. I. Borisenko, A. P. Kazanskaya, P. V. Morozova, Zh. S. Takibaev and N. S. Titova. 15(4), 419-22 (Oct. 1972); CPM-7212D1964
- Kazarinov, N. M.**— CF^{252} Fission Neutrons (E)—M. V. Blinov, N. M. Kazarinov and I. T. Krisyuk. 16(6), 634-7 (Jun. 1973); CPM-7310E1482
- Kazaryan, G. Kh.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412-6 (Apr. 1973); CPM-7309D1128
- Keropyan, M. I.**—Analysis of Theoretical and Experimental Data on the Multiplicity of Shower Particles in High-Energy Hadron Interactions (R)—V. V. Avakyan, M. I. Keropyan and E. A. Mamidzhanyan. 16(4), 423-5 (Apr. 1973); CPM-7309D1139
- Khabakhpashev, A. G.**—Observation of Double e^+e^- Pair Production (E)—V. E. Balakin, A. D. Bukin, L. M. Kurdadze, A. P. Onuchin, E. V. Pakhtusova, S. I. Serebnyakov, V. A. Sidorov and A. G. Khabakhpashev. 16(4), 407-9 (Apr. 1973); CPM-7309D1123
- Khalil, M. A.**—Spectra of γ Rays Produced in Si^{30} and S^{34} Capture of Thermal Neutrons (E)—Dzh. D. Dzhabar, A. A. Abdullah, N. Kh. Al-Kuraishi, M. S. Al'vash, M. A. Khalil and A. M. Demidov. 15(6), 605-7 (Dec. 1972); CPM-7302E0131
- Radiation of p-Levels of Even-Odd Nuclei with $21 \leq A \leq 41$ in Cascade Emission Following Capture of Thermal Neutrons (E)—A. M. Demidov, J. D. Jafar, M. A. Khalil and F. A. Hussein. 16(1), 1-5 (Jan. 1973); CPM-7304E0105
- Khalilov, V. R.**—Induced Emission of Electrons in Plane Electromagnetic Waves (T)—I. M. Ternov and V. R. Khalilov. 16(1), 94-8 (Jan. 1973); CPM-7304E0198
- Kham'yanov, L. P.**—Gamma Radiation in Intermediate Neutron Radioactive Capture (E)—A. F. Gamali, B. V. Zemtsev, V. B. Ivanov, B. V. Nesterov and L. P. Kham'yanov. 15(1), 1-4 (Jul. 1972); CPM-7209C0953
- Khangulyan, V. A.**—Spin Effects in Production of Quasinuclear Mesons by Antiprotons (T)—O. D. Dal'karov, V. B. Mandel'tsweig and V. A. Khangulyan. 15(1), 100-2 (Jul. 1972); CPM-7209C1052
- Dependence of Polarization Effects in Direct Nuclear Reactions on the Total Angular Momentum of an Exchanged Particle (T)—V. M. Kolybasov and V. A. Khangulyan. 15(5), 520-2 (Nov. 1972); CPM-7302E0046
- Kharashvili, G. I.**—Production of Slow Pions in Interactions between High Energy Particles and Nuclei (E)—N. I. Kostanashvili, G. I. Debedevich, D. S. Nabichvishvili and G. I. Kharashvili. 16(5), 542-5 (May 1973); CPM-7309D1258
- Kharchenko, V. F.**—Short-Range Nucleon-Nucleon Repulsion and Low-Energy Three-Nucleon Parameters (T)—V. F. Kharchenko, S. A. Shadchin and S. A. Storozhenko. 15(5), 493-6 (Nov. 1972); CPM-7302E0019
- Solution of the Skornyakov-Ter-Martirosyan Equations for Three Nucleons with Cutoff at Large Momenta (T)—V. F. Kharchenko. 16(2), 173-5 (Feb. 1973); CPM-7304E0276
- Kharisov, I. F.**—Measurement of the Excitation Energy of the Spontaneously Fissioning Isomer $\text{Pu}^{239}(\gamma, n)$ (E)—Yu. P. Gangarskii, V. N. Markov, I. F. Kharisov and Yu. M. Tsipenyuk. 16(2), 151-4 (Feb. 1973); CPM-7304E0254
- Excitation Energies of the Spontaneously Fissile Isomers of Pu^{240} , Cm^{241} , and Bk^{243} in Reactions with α Particles (E)—I. Vylkov, N. Vylkov, Yu. P. Gangarskii, M. Marinescu, A. A. Pleve, D. Poenaru and I. F. Kharisov. 16(3), 253-6 (Mar. 1973); CPM-7306D0349
- Kharkevich, G. I.**—Nonconservation of P-Parity in γ Decay of K^{41} (E)—B. M. Lobashov, V. A. Nazarenko, N. A. Bozovoi, L. M. Smotriskii, G. I. Kharkevich and V. A. Knyaz'kov. 15(6), 632-5 (Dec. 1972); CPM-7302E0158
- Kharzheev, Yu. N.**—Investigation of the Reactions $\pi p \rightarrow n\pi^+\pi^- + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Khazins, D. M.**—Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi p \rightarrow e^+e^-n$ at $E_{\pi_{\text{kin}}} = 275$ MeV (E)—S. F. Berezhnev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, A. V. Kuptsov, G. G. Mkrtchyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. 16(1), 99-102 (Jan. 1973); CPM-7304E0203
- Kheifets, E. P.**—Parton Model for $\gamma\gamma$ Scattering (T)—L. I. Perlovskii and E. P. Kheifets. 15(4), 435-7 (Oct. 1972); CPM-7212D1980
- Khleskov, V. I.**—The Reaction $\gamma + \gamma \rightarrow \pi^+ + \pi^-$ and the Pion Electromagnetic Mass Difference (T)—P. S. Isaev and V. I. Khleskov. 16(5), 559-64 (May 1973); CPM-7309D1275
- Khodyachikh, A. F.**—Photodisintegration of He^4 into Two Deuterons (E)—Yu. M. Arkatov, P. I. Vatsset, V. I. Voloshchuk, I. M. Prokhorets, A. F. Khodyachikh and V. I. Chmil. 16(1), 6-8 (Jan. 1973); CPM-7304E0110
- Khokhlov, Yu. A.**—Energy Dependence of $\bar{\nu}$ in the Fission of U^{235} by Fast Neutrons (E)—M. V. Savin, Yu. A. Khokhlov, A. E. Savel'ev and I. N. Paramonova. 16(6), 638-40 (Jun. 1973); CPM-7310E1486
- Kholmetskaya, A. V.**—Analysis of the Angular and Energy Characteristics of Secondary Particles Produced in Proton-Proton Interactions at 10 BeV/c (E)—Zh. S. Takibaev, M. G. Antonova, E. G. Boos, D. I. Ermilova, L. A. San'ko, T. Temiraliyev and A. V. Kholmetskaya. 15(1), 38-43 (Jul. 1972); CPM-7209C0990
- Kholodov, N. I.**—Depolarization of Negative Muons in Monomeric and Polymeric Organic Compounds (T)—A. A. Dzhuvaev, V. S. Evseev, Yu. V. Obukhov, V. S. Roganov and N. I. Kholodov. 16(1), 64-6 (Jan. 1973); CPM-7304E0168
- Khomich, A. A.**—Determination of the Charge Distribution Parameters of Ni^{60} , Zn^{64} , and Zn^{66} by Elastic Electron Scattering (E)—A. S. Litvinenko, N. G. Shevchenko, N. G. Afanas'ev, A. Yu. Buki, G. A. Savitskii, V. M. Khvastunov, A. A. Khomich, I. I. Chkalov and V. P. Likhachev. 15(6), 611-3 (Dec. 1972); CPM-7302E0137
- Khoze, V. A.**—Electromagnetic Production of W-Meson Pairs (T)—N. L. Ter-Isaakyan and V. A. Khoze. 15(1), 51-5 (Jul. 1972); CPM-7209C1003
- Electromagnetic Mechanism of Inelastic Hadron Collision at High Energies (T)—S. G. Matinyan, N. L. Ter-Isaakyan, V. A. Khoze and Yu. G. Shakhnazaryan. 16(4), 440-4 (Apr. 1973); CPM-7309D1156
- Polarization Effects in Weak Interactions of Colliding e^+e^- and e^-e^- Beams at High Energies (T)—G. V. Grigoryan and V. A. Khoze. 16(5), 592-6 (May 1973); CPM-7309D1308
- Khriplovich, I. B.**—The Problem of Violation of Causality in the Motion of High-Spin Particles in an External Field (T)—I. B. Khriplovich. 16(4), 457-63 (Apr. 1973); CPM-7309D1173
- Khristiansen, G. B.**—Increase in the Transverse Momenta in Nuclear Interactions at Energies $\geq 10^{12}$ eV from EAS Data (E)—Yu. A. Fomin and G. B. Khristiansen. 15(4), 423-6 (Oct. 1972); CPM-7212D1968
- Generation and Interaction of Muons with Energies $E_\mu \sim 10^{12}$ eV (E)—G. B. Khristiansen, O. V. Vedenev and Yu. A. Nechin. 15(5), 538-42 (Nov. 1972); CPM-7302E0064

- Khristsansen, G. V.**—Analysis of Present Experimental Data on Ultra-high-energy Cosmic Rays (E)—G. V. Kulikov and G. V. Khristiansen. 15(4), 427–32 (Oct. 1972); CPM-7212D1972
- Khrystov, L. G.**—The Real Part of the Amplitude for Elastic pd -Scattering at an Energy of 70 GeV (E)—V. I. Zayachki, L. G. Khrystov, Z. M. Zlatanov and P. A. Devenski. 15(5), 528–9 (Nov. 1972); CPM-7302E0054
- Khrustalev, O. A.**—Connection of the Total Cross Section with the Diffraction Peak of Elastic Scattering (T)—V. I. Savrin, S. V. Semenov, N. E. Tyurin and O. A. Khrustalev. 16(2), 214–6 (Feb. 1973); CPM-7304E0317
- Khyrlyin, B. A.**—Influence of Majorana Forces on the Properties of p -Shell Hypernuclei (T)—A. B. Kochetov and B. A. Khyrlyin. 16(1), 25–6 (Jan. 1973); CPM-7304E0129
- Khudaverdyan, A. G.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412–6 (Apr. 1973); CPM-7309D1128
- Khurshudyan, L. S.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412–6 (Apr. 1973); CPM-7309D1128
- Khvastunov, V. M.**—Determination of the Charge Distribution Parameters of Ni^{60} , Zn^{64} by Elastic Electron Scattering (E)—A. S. Litvinenko, N. G. Shevchenko, N. G. Afanas'ev, A. Yu. Buki, G. A. Savitskii, V. M. Khvastunov, A. A. Khomich, I. I. Chkalov and V. P. Likhachev. 15(6), 611–3 (Dec. 1972); CPM-7302E0137
- Kienzle, W.**—Missing-Mass Spectra Observed in the Reaction $\pi^+ + p \rightarrow p + X^+$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Èch, M. N. Kienzle-Focacci, W. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550–3 (May 1973); CPM-7309D1266
- Kienzle-Focacci, M. N.**—Missing-Mass Spectra Observed in the Reaction $\pi^+ + p \rightarrow p + X^+$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Èch, M. N. Kienzle-Focacci, W. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550–3 (May 1973); CPM-7309D1266
- Kil'dyushov, M. S.**—Hyperspherical Functions of the "Tree" Type in the n -Body Problem (T)—M. S. Kil'dyushov. 15(1), 113–7 (Jul. 1972); CPM-7209C1065
- The n -Body Problem. Matrix Elements of Permutations (T)—M. S. Kil'dyushov. 16(1), 117–9 (Jan. 1973); CPM-7304E0221
- Kirichenko, M. V.**—An Investigation of the (n, α) Reaction Between 4.9-MeV Neutrons and Light Nuclei of a Photographic Emulsion (E)—M. V. Kirichenko and Z. I. Solov'eva. 16(1), 9–10 (Jan. 1973); CPM-7304E0113
- Kirilov, A. A.**—Angular and Spatial Distributions of Particles of Electron-Photon Shower Particles (T)—V. V. Guzhavin, I. P. Ivanenko, A. A. Kirilov and Yu. P. Paskhalov. 15(3), 278–81 (Sep. 1972); CPM-7211A1907
- Kirilova, L. F.**—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirilova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong Ben and M. G. Shafranova. 15(6), 650–3 (Dec. 1972); CPM-7302E0176
- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. I. Zajacki, L. S. Zolin, L. F. Kirilova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong Bien and M. G. Shafranova. 16(1), 50–6 (Jan. 1973); CPM-7304E0154
- Kirzhnits, D. A.**—Ultra-High-Energy Cosmic Rays and a Possible Generalization of Relativistic Theory (T)—D. A. Kirzhnits and V. A. Chechin. 15(5), 585–9 (Nov. 1972); CPM-7302E0111
- Sum Rules for Potential Scattering (T)—D. A. Kirzhnits and N. Zh. Takibaev. 16(2), 242–3 (L) (Feb. 1973); CPM-7304E0345
- Kiss, D.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14–42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534–7 (Nov. 1972); CPM-7302E0060
- Kladnitskii, V. S.**—Production of Pairs of Λ^0 Hyperons in Interactions of π Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelpev, Zh. K. Karamyan, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44–6 (Jul. 1972); CPM-7209C0996
- Investigation of the Reactions $\pi p \rightarrow n\pi^+ p + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelpev, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, L. Sandor and V. G. Yatsyuk. 15(6), 645–9 (Dec. 1972); CPM-7302E0171
- Klanner, R.**—Missing-Mass Spectra Observed in the Reaction $\pi^+ + p \rightarrow p + X^+$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Èch, M. N. Kienzle-Focacci, W. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550–3 (May 1973); CPM-7309D1266
- Klepikov, N. P.**—Geometrical Approach to the Investigation of Kinematic Symmetries of Free Particle Systems (T)—N. P. Klepikov and G. Yu. Bogoslovskii. 16(4), 478–82 (Apr. 1973); CPM-7309D1194
- Knat'ko, V. A.**—Doorway States of "Phonon + Particle" Type in (n, γ) Reactions on $N=28$ and $N=82$ Nuclei (E)—V. A. Knat'ko and E. A. Rudak. 15(6), 626–8 (Dec. 1972); CPM-7302E0152
- Knyaz'kov, V. A.**—Nonconservation of P-Parity in γ Decay of K^{41} (E)—B. M. Lobashov, V. A. Nazarenko, N. A. Bozovoi, L. M. Smotriskii, G. I. Kharkevich and V. A. Knyaz'kov. 15(6), 632–5 (Dec. 1972); CPM-7302E0158
- Knyr, V. A.**—Rigid Asymmetrical Rotator and Deformability of Nuclei (T)—A. D. Fedorov and V. A. Knyr. 16(4), 376–9 (Apr. 1973); CPM-7309D1092
- Kobriniskii, M. N.**—Muon Pair Production in μp Collisions (E)—M. N. Kobriniskii and F. F. Tikhonin. 15(6), 685–6 (Dec. 1972); CPM-7302E0211
- Kobylnskii, N. A.**— $NN \rightarrow 3\pi$ Annihilation in Dual Models (T)—A. I. Bugrii, L. N. Enkovskii and N. A. Kobylnskii. 15(6), 699–701 (Dec. 1972); CPM-7302E0225
- Kobzev, A. P.**—Optical Radiation Excited by Nonrelativistic Charged Particles at Metal Surfaces (E)—A. P. Kobzev, S. Michalak, E. Rutkowski and I. M. Frank. 15(2), 184–8 (Aug. 1972); CPM-7210C1445
- Kochetov, A. B.**—Influence of Majorana Forces on the Properties of p -Shell Hypernuclei (T)—A. B. Kochetov and B. A. Khyrlyin. 16(1), 25–6 (Jan. 1973); CPM-7304E0129
- Kolesnikova, L. N.**—Angular Distributions of 13.7-MeV Neutrons Elastically Scattered by the Isotopes $Pb^{206,207,208}$ (E)—G. E. Belovitskii, L. N. Kolesnikova and I. M. Frank. 15(4), 369–71 (Oct. 1972); CPM-7212D1914
- Inelastic Scattering of 13.7 MeV Neutrons by Lead Isotopes (E)—G. E. Belovitskii, L. N. Kolesnikova and I. M. Frank. 15(4), 372–4 (Oct. 1972); CPM-7212D1917
- Kolkunov, V. A.**—Quasiclassical Expansion and the Exponential Method (T)—V. A. Kolkunov and V. N. Melnikov. 16(5), 617–21 (May 1973); CPM-7309D1333
- Kolpakov, A. V.**—The Vavilov-Cerenkov Effect in the X-Ray Wavelength Region (T)—A. V. Kolpakov. 16(5), 554–5 (May 1973); CPM-7309D1270
- Kolybasov, V. M.**—Polarization Effects in $(p, 2p)$ Reaction (T)—V. M. Kolybasov and N. Ya. Smorodinskaya. 15(3), 269–72 (Sep. 1972); CPM-7211A1898

- Dependence of Polarization Effects in Direct Nuclear Reactions on the Total Angular Momentum of an Exchanged Particle (T)—V. M. Kolybasov and V. A. Khangulyan. 15(5), 520-2 (Nov. 1972); CPM-7302E0046
- Komarov, V. I.—Energy Dependence of Elastic Backward Scattering of Protons by Deuterons in the 360-670 MeV Range (E)—V. I. Komarov, G. E. Kosarev, G. P. Reshetnikov and O. V. Savchenko. 16(2), 129-33 (Feb. 1973); CPM-7304E0232
- Kondratyuk, L. A.—Two-Photon Exchange in Large-Angle Scattering of High-Energy Electrons by Light Nuclei (T)—V. N. Boitsov, L. A. Kondratyuk and V. B. Kopeliovich. 16(3), 287-91 (Mar. 1973); CPM-7306D0383
- Kopaleishvili, T. I.—Excitation Spectrum of Residual Nuclei in (π , nn) Reaction (E)—T. I. Kopaleishvili, I. Z. Machabeli and M. Sh. Chachkhunashvili. 15(6), 629-31 (Dec. 1972); CPM-7302E0155
- Kopeliovich, B. Z.—Coherent Production of Ω - and Ξ Hyperons on Nuclei and the Determination of Their Spin and Parity (T)—B. Z. Kopeliovich. 16(3), 326-31 (Mar. 1973); CPM-7306D0422
- Kopeliovich, V. B.—Two-Photon Exchange in Large-Angle Scattering of High-Energy Electrons by Light Nuclei (T)—V. N. Boitsov, L. A. Kondratyuk and V. B. Kopeliovich. 16(3), 287-91 (Mar. 1973); CPM-7306D0383
- ρ N—NNKK Reactions in Models with Single-Kaon Exchange (T)—V. B. Kopeliovich. 16(3), 323-5 (Mar. 1973); CPM-7306D0419
- Kopylov, G. I.—Possibilities of Resonance Interferometers (T)—G. I. Kopylov. 15(1), 103-7 (Jul. 1972); CPM-7209C1055
- Correlations of Identical Particles Emitted by Highly Excited Nuclei (T)—G. I. Kopylov and M. I. Podgoretskii. 15(2), 219-23 (Aug. 1972); CPM-7210C1480
- Kornienko, N. D.—Use of the Perturbed Angle ϕ_{cm} Correlation to Measure the Hg¹⁹⁷ 133-keV State g-Factor (E)—N. D. Kornienko, B. G. Kul'chinskii, A. I. Levon and O. F. Nemets. 15(4), 353-6 (Oct. 1972); CPM-7212D1898
- Kosarev, G. E.—Energy Dependence of Elastic Backward Scattering of Protons by Deuterons in the 360-670 MeV Range (E)—V. I. Komarov, G. E. Kosarev, G. P. Reshetnikov and O. V. Savchenko. 16(2), 129-33 (Feb. 1973); CPM-7304E0232
- Kostanashvili, N. I.—Production of Slow Pions in Interactions between High Energy Particles and Nuclei (E)—N. I. Kostanashvili, G. I. Debedevich, D. S. Nabichvishvili and G. I. Kharashvili. 16(5), 542-5 (May 1973); CPM-7309D1258
- Kostochkin, O. I.—Prompt Neutrons and Kinetic Energy of Fragments from Spontaneous Fission of Cm²⁴⁴ (E)—I. D. Alkhazov, S. S. Kovalenko, O. I. Kostochkin, L. Z. Malkin, K. A. Petrzhak and V. I. Shpakov. 15(1), 12-6 (Jul. 1972); CPM-7209C0964
- Kostylev, V. A.—Fission of U²³⁵ by Thermal Neutrons (E)—V. P. Zakharova, D. K. Ryzanov, B. G. Basova, A. D. Rabinovich and V. A. Kostylev. 16(4), 364-71 (Apr. 1973); CPM-7309D1080
- Kostyuchenko, S. D.—Correlation of α Particles and γ Rays from the Reaction Al²⁷(p , α)Mg²⁴ for 6.40-MeV Protons (E)—S. S. Vasil'ev, A. S. Dem'yanova, V. S. Zazulin, S. D. Kostyuchenkov, T. N. Mikhaleva, S. F. Nikyaki and D. L. Chupronov. 15(4), 367-8 (Oct. 1972); CPM-7212D1912
- Kosyak, Yu. G.—Lifetime of the 2.734-MeV Level of Sr⁸⁸ (E)—D. K. Kaipov, Yu. G. Kosyak, L. N. Smirin and Yu. K. Subnyi. 15(6), 603-4 (Dec. 1972); CPM-7302E0129
- Kosyakov, V. N.—Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of Cf²⁴⁹ (E)—K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kosyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentshev and V. N. Okolovich. 15(1), 17-9 (Jul. 1972); CPM-7209C0969
- Cf²³⁵ Fission Cross Section in the Neutron Energy Range 0.16-1.6 MeV (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, V. N. Kosyakov, G. A. Otroschenko, L. V. Chistyakov, V. A. Shigin and V. M. Shubko. 15(1), 20-1 (Jul. 1972); CPM-7209C0972
- Koutsidi, N. K.—Investigation of the Reactions $\pi\pi\bar{p}\rightarrow n\pi^+\pi^+(1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Kovalenko, S. S.—Prompt Neutrons and Kinetic Energy of Fragments from Spontaneous Fission of Cm²⁴⁴ (E)—I. D. Alkhazov, S. S. Kovalenko, O. I. Kostochkin, L. Z. Malkin, K. A. Petrzhak and V. I. Shpakov. 15(1), 12-6 (Jul. 1972); CPM-7209C0964
- Kovalev, A. M.—Influence of Excitation Energy on the Mass and Kinetic Energy Distributions of U²³³ Fission Fragments (E)—A. I. Sergachev, N. P. D'yachenko, A. M. Kovalev and B. D. Kuz'minov. 16(3), 266-9 (Mar. 1973); CPM-7306D0362
- Kozhukhova, S.—Investigation of the Reactions $\pi\pi\bar{p}\rightarrow n\pi^+\pi^+(1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Kozlovskii, I. V.—Scattering of High-Energy Electrons by H³ and He³ Nuclei (T)—A. G. Sitenko, I. V. Kozlovskii and V. K. Tartakovskii. 15(4), 406-9 (Oct. 1972); CPM-7212D1951
- Two-Particle Electrodissintegration of He³ (T)—I. V. Kozlovskii, V. K. Tartakovskii and A. D. Foursat. 16(3), 277-81 (Mar. 1973); CPM-7306D0373
- Kozlovskii, T.—Angular Distribution of Low Energy Neutrons from Nuclear μ -Capture in Sulfur and Calcium (E)—I. Wojtkowska, V. S. Evseev, T. Kozlowski, A. A. Nikolina and V. S. Roganov. 15(5), 523-5 (Nov. 1972); CPM-7302E0049
- Neutron Energy Spectrum from Absorption of Negative Muons by O, S, Ca, and Pb Nuclei (E)—I. Wojtkowska, V. S. Evseev, T. Kozlowski and V. S. Roganov. 15(6), 639-44 (Dec. 1972); CPM-7302E0165
- Krasil'nikov, D. D.—Development of Superhigh-Energy Electron-Photon Showers in the Atmosphere (T)—D. D. Krasil'nikov, V. P. Kulakovskaya and S. I. Nikol'skii. 15(1), 47-50 (Jul. 1972); CPM-7209C0999
- Krasnokutskii, R. N.—Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674-7 (Jun. 1973); CPM-7310E1522
- Krasnov, L. V.—Examination of Distorted Wave Method for Stripping Reactions to Resonant States (T)—V. E. Bunakov, K. A. Gridnev and L. V. Krasnov. 15(5), 508-12 (Nov. 1972); CPM-7302E0034
- Krisyuk, I. T.—Cf²⁵² Fission Neutrons (E)—M. V. Blinov, N. M. Kazarinov and I. T. Krisyuk. 16(6), 634-7 (Jun. 1973); CPM-7310E1482
- Krive, I. V.—Electroproduction of Strange Particles on Nucleons Near the Threshold (E)—I. V. Krive. 16(5), 556-8 (May 1973); CPM-7309D1272
- Krivokhizhin, V. G.—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshv, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Kruglov, S. P.—Calculation of Electron-Proton Showers Produced in Lead by Electrons and γ Rays with Energies from 50 to 400 MeV (T)—M. Ya. Borkovskii and S. P. Kruglov. 16(2), 194-8 (Feb. 1973); CPM-7304E0297
- Krupennikova, N. B.—Magnetic Moments of Three-Particle Nuclei (T)—N. B. Krupennikova. 15(3), 260-1 (Sep. 1972); CPM-7211A1889
- Kucher, A. M.—Measurement of Compound-Nucleus Lifetime by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, A. M. Kucher, F. Normuratov and Yu. Ts. Oganessian. 16(2), 140-3 (Feb. 1973); CPM-7304E0243
- Kukhlenko, A. S.—Excitation of Collective States of Some Medium Nuclei by 14-MeV Neutrons (E)—B. E. Leshchenko, M. E. Gurtovoi, A. S. Kukhlenko and V. I. Strizhak. 15(1), 5-9 (Jul. 1972); CPM-7209C0957

- Kukhtin, V. V.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14–42 GeV/c (E)—V. K. Birulev, L. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshv, P. Todorov, L. Urvan and N. G. Fadeev. 15 (5), 534–7 (Nov. 1972); CPM-7302E0060
- Application of the Methods of Statistical Mechanics to Dual Resonance Models (T)—G. P. Demchenko, V. V. Kukhtin and B. V. Struminskii. 16(5), 511–3 (May 1973); CPM-7309D1227
- Kuks, I. M.**—Search for Fission Isomers in the Radium Region (E)—I. M. Kuks, V. I. Matvienko, Yu. A. Nemilov, Yu. A. Selitskii and V. B. Funshtein. 16(2), 244(L) (Feb. 1973); CPM-7304E0347
- Kulakovskaya, V. P.**—Development of Superhigh-Energy Electron-Photon Showers in the Atmosphere (T)—D. D. Krasil'nikov, V. P. Kulakovskaya and S. I. Nikol'skii. 15(1), 47–50 (Jul. 1972); CPM-7209C0999
- Kul'Chinskii, B. G.**—Use of the Perturbed Angle ϵ_{cmcy} Correlation to Measure the Hg^{197} 133-keV State g-Factor (E)—N. D. Kornienko, B. G. Kul'Chinskii, A. I. Levon and O. F. Nemets. 15(4), 353–6 (Oct. 1972); CPM-7212D1898
- Kulikov, A. V.**—Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi\pi^+\pi^-\pi^0$ at $E_{\text{kin}}=275$ MeV (E)—S. F. Berezhnev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, A. V. Kuptsov, G. G. Mkrtchyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. 16(1), 99–102 (Jan. 1973); CPM-7304E0203
- Kulikov, G. V.**—Analysis of Present Experimental Data on Ultra-high-energy Cosmic Rays (E)—G. V. Kulikov and G. V. Kristiansen. 15(4), 427–32 (Oct. 1972); CPM-7212D1972
- Kulish, Yu. V.**—Lepton Pair Production Processes in Pion-Nucleon Interactions (T)—Yu. V. Kulish. 16(5), 605–10 (May 1973); CPM-7309D1321
- Kuptsov, A. V.**—Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi\pi^+\pi^-\pi^0$ at $E_{\text{kin}}=275$ MeV (E)—S. F. Berezhnev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, A. V. Kuptsov, G. G. Mkrtchyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. 16(1), 99–102 (Jan. 1973); CPM-7304E0203
- Kuraev, E. A.**—Production of Electron and Muon Pairs in Colliding e^-e^- and e^-e^+ Pairs (T)—E. A. Kuraev and L. N. Lipatov. 16(5), 584–91 (May 1973); CPM-7309D1300
- Kurbatov, V. S.**—Model of the Partial-Wave Analysis of the Δ_{1236} Resonance Production Reactions $\pi N \rightarrow \pi\pi N$ Near Threshold with Allowance for the Triangle Graph Contribution (T)—S. A. Bunyatov, V. S. Kurbatov and A. K. Likhoded. 16(6), 705–8 (Jun. 1973); CPM-7310E1553
- Estimate of the $\pi\pi$ Scattering Length a_0 by the Method of Separating the Triangle Graph Contribution in the Reactions $\pi N \rightarrow \pi\pi N$ (T/E)—S. A. Bunyatov, V. S. Kurbatov, A. K. Likhoded and H. M. Staudenmaier. 16(6), 709–12 (Jun. 1973); CPM-7310E1557
- Kurdadze, L. M.**—Observation of Double e^+e^- Pair Production (E)—V. E. Balakin, A. D. Bukin, L. M. Kurdadze, A. P. Onuchin, E. V. Pakhtusova, S. I. Serednyakov, V. A. Sidorov and A. G. Khabakhpashev. 16(4), 407–9 (Apr. 1973); CPM-7309D1123
- Kutsarova, T.**—Lifetimes of the Rotational Levels of Yb^{164} Measured by the Doppler Effect in the Recoil Nuclei (E)—B. Bochev, S. A. Karamyan, T. Kutsarova, Ya. Ukhlin, E. Nadzhakov, Ts. Venkova and R. Kalpakchieva. 16(4), 355–8 (Apr. 1973); CPM-7309D1071
- Kuvatov, K. G.**— Po^{210} Fission in $\text{Pb}^{206}(\alpha, f)$ Reaction (E)—M. G. Itkis, K. G. Kuvatov, V. N. Okolovich, G. Ya. Ruskina, G. N. Smirenkin and A. S. Tishin. 16(2), 144–50 (Feb. 1973); CPM-7304E0247
- Study of Phase Transition in the Density of the Excited States of Even-Even Pb Nuclei in the (α, f) Reaction (E)—V. N. Okolovich, M. G. Itkis, K. G. Kuvatov and G. N. Smirenkin. 16(6), 631–3 (Jun. 1973); CPM-7310E1479
- Kuz'menko, V. S.**—Study of (γ, T) Reactions in Nuclei with Bremsstrahlung Energies up to 1200 MeV (E)—Yu. P. Antuf'ev, V. L. Agranovich, V. B. Ganenko, V. S. Kuz'menko, I. I. Miroshnichenko, P. V. Sorokin and V. S. Shalatskii. 15(4), 357–60 (Oct. 1972); CPM-7212D1902
- Kuz'minov, B. D.**—Influence of Excitation Energy on the Mass and Kinetic Energy Distributions of U^{233} Fission Fragments (E)—A. I. Sergachev, N. P. D'yachenko, A. M. Kovalev and B. D. Kuz'minov. 16(3), 266–9 (Mar. 1973); CPM-7306D0362
- Kuznetsov, B. L.**—Elastic Scattering of 26.6-MeV α Particles by Light Nuclei (E)—B. I. Kuznetsov, R. E. Ovsyannikova and I. P. Chernov. 15(4), 377–8 (Oct. 1972); CPM-7212D1922
- Kuznetsov, G. I.**—Proper Singularities of One-loop n-gon Feynman Diagrams (T)—G. I. Kuznetsov. 15(4), 471–2 (Oct. 1972); CPM-7212D2016
- Partial Wave Analysis of NN and NM Scattering Amplitudes at High Energies (T)—G. I. Kuznetsov. 15(5), 576–81 (Nov. 1972); CPM-7302E0102

L

- Landsberg, L. G.**—On the Problem of Heavy Leptons (T)—S. S. Gershtein, L. G. Landsberg and V. N. Folomeshkin. 15(2), 195–7 (Aug. 1972); CPM-7210C1456
- Some Comments on the Search for Quarks Using a 70 GeV Accelerator (T/E)—A. M. Zaitsev and L. G. Landsberg. 15(6), 656–64 (Dec. 1972); CPM-7302E0182
- Missing-Mass Spectra Observed in the Reaction $\pi^+p \rightarrow p+X^-$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Dangaard, F. A. E'ch, M. N. Kienzie-Focacci, W. Kienzie, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roishnshvili and R. D. Sard. 16(5), 550–3 (May 1973); CPM-7309D1266
- Laperashvili, L. V.**—Unitarization of the Veneziano Model and the Pomeron Problem (T)—L. V. Laperashvili. 15(3), 317–21 (Sep. 1972); CPM-7211A1946
- Production of a Spin-J Resonance in the Dual Resonance Model (T)—L. V. Laperashvili and M. G. Saifov. 15(5), 567–70 (Nov. 1972); CPM-7302E0093
- Lapidus, L. I.**—Radiative Pion Capture by Hydrogen and Sign of Neutral Pion Decay Amplitude (E)—L. I. Lapidus and M. M. Musakhanov. 15(5), 558–60 (Nov. 1972); CPM-7302E0084
- Electromagnetic Effects in Polarization in Meson-Nucleon Scattering (T)—A. P. Vanzha, L. I. Lapidus and A. V. Tarasov. 16(5), 565–70 (May 1973); CPM-7309D1281
- Laptev, S. V.**—Nuclear Reactions Produced by α Particles on Co^{59} Nuclei (E)—O. A. Zhukova, V. I. Kanashevich, S. V. Laptev and G. P. Chursin. 16(2), 134–7 (Feb. 1973); CPM-7304E0237
- Lazarev, Yu. A.**—Average Number of Prompt Neutrons in the Spontaneous Fission of Fm^{256} (E)—M. Dakovskii, Yu. A. Lazarev and Yu. Ts. Oganessian. 16(6), 641–2 (Jun. 1973); CPM-7310E1489
- Lazurik-El'tsufin, V. T.**—Oscillations of a Fermi Liquid Drop and Giant Resonance in Medium and Heavy Nuclei (T)—I. A. Akhiezer, B. I. Barts and V. T. Lazurik-El'tsufin. 15(5), 484–6 (Nov. 1972); CPM-7302E0010
- Lebedev, A. A.**—Missing-Mass Spectra Observed in the Reaction $\pi^+p \rightarrow p+X^-$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Dangaard, F. A. E'ch, M. N. Kienzie-Focacci, W. Kienzie, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roishnshvili and R. D. Sard. 16(5), 550–3 (May 1973); CPM-7309D1266
- Lebedev, A. N.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412–6 (Apr. 1973); CPM-7309D1128
- Lebedev, V. M.**—The (α, t) Reaction in Li^7 and B^{11} (E)—O. I. Vasil'eva, N. V. Karabanov, V. M. Lebedev, A. V. Spasskii and I. B. Teplov. 16(3), 257–9 (Mar. 1973); CPM-7306D0353
- Lechanoine, C.**—Missing-Mass Spectra Observed in the Reaction $\pi^+p \rightarrow p+X^-$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Dangaard, F. A. E'ch, M. N. Kienzie-Focacci, W. Kienzie, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roishnshvili and R. D. Sard. 16(5), 550–3 (May 1973); CPM-7309D1266

- ecomte, P.**—Missing-Mass Spectra Observed in the Reaction $\pi^+ + p \rightarrow p + X^-$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Èch, M. N. Kienzle-Focacci, M. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550-3 (May 1973); CPM-7309D1266
- Lednický, R.**—Determination of the Spin-Parity of the $X^0(960)$ Meson in Proton-Antiproton Annihilation at Rest (E)—L. È. Genina, A. N. Zaslavskii and R. Lednický. 15(5), 571-3 (Nov. 1972); CPM-7302E0097
- Chiral $Su(2) \times Su(2)$ Dynamics and the $\pi^+ p \rightarrow \rho^0 \Delta^{++}_{1236}$ Reaction Close to the Threshold (T/E)**—A. N. Zaslavskii and R. Lednický. 16(2), 232-7 (Feb. 1973); CPM-7304E0335
- Lendel, A. I.**—t-Channel Contribution to Pion-Nucleon Backward Scattering (T)—A. I. Lendel and V. I. Lend'el. 15(1), 79-82 (Jul. 1972); CPM-7209C1031
- Lend'el, V. I.**—t-Channel Contribution to Pion-Nucleon Backward Scattering (T)—A. I. Lendel and V. I. Lend'el. 15(1), 79-82 (Jul. 1972); CPM-7209C1031
- Leshchenko, B. E.**—Excitation of Collective States of Some Medium Nuclei by 14-MeV Neutrons (E)—B. E. Leshchenko, M. E. Gurtovoi, A. S. Kukhlenko and V. I. Strizhak. 15(1), 5-9 (Jul. 1972); CPM-7209C0957
- Lev, F. M.**—Deep Inelastic Lepton Pair Production in Neutrino Nucleus Scattering (T)—F. M. Lev. 15(5), 556-7 (Nov. 1972); CPM-7302E0082
- Levich, A. P.**—Nuclear Densities in the K-Harmonics Method (T)—A. P. Levich. 15(4), 404-5 (Oct. 1972); CPM-7212D1949
- Levon, A. I.**—Use of the Perturbed Angle ϵ_{BAGBY} Correlation to Measure the Hg^{197} 133-keV State g-Factor (E)—N. D. Kornienko, B. G. Kul'Chinskii, A. I. Levon and O. F. Nemets. 15(4), 353-6 (Oct. 1972); CPM-7212D1898
- Likhachev, M. F.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Likhachev, V. P.**—Determination of the Charge Distribution Parameters of Ni^{60} , Zn^{64} , and Zn^{66} by Elastic Electron Scattering (E)—A. S. Litvinenko, N. G. Shevchenko, N. G. Afanas'ev, A. Yu. Buki, G. A. Savitskii, V. M. Khvastunov, A. A. Khomich, I. I. Chkalov and V. P. Likhachev. 15(6), 611-3 (Dec. 1972); CPM-7302E0137
- Likhoded, A. K.**—Model of the Partial-Wave Analysis of the Δ_{1236} Resonance Production Reactions $\pi N \rightarrow \pi \pi N$ Near Threshold with Allowance for the Triangle Graph Contribution (T)—S. A. Buniyatov, V. S. Kurbatov and A. K. Likhoded. 16(6), 705-8 (Jun. 1973); CPM-7310E1553
- Estimate of the $\pi\pi$ Scattering Length a_0 by the Method of Separating the Triangle Graph Contribution in the Reactions $\pi N \rightarrow \pi \pi N$ (T/E)**—S. A. Buniyatov, V. S. Kurbatov, A. K. Likhoded and H. M. Staudenmaier. 16(6), 709-12 (Jun. 1973); CPM-7310E1557
- Lipatov, L. N.**—Deep Inelastic ep Scattering in Perturbation Theory (T)—V. N. Gribov and L. N. Lipatov. 15(4), 438-50 (Oct. 1972); CPM-7212D1983
- e^+e^- Pair Annihilation and Deep Inelastic ep Scattering in Perturbation Theory (T)**—V. N. Gribov and L. N. Lipatov. 15(6), 675-84 (Dec. 1972); CPM-7302E0201
- Production of Electron and Muon Pairs in Colliding e^-e^- and e^-e^+ Pairs (T)**—E. A. Kuraev and L. N. Lipatov. 16(5), 584-91 (May 1973); CPM-7309D1300
- Lipmanov, È. M.**—Possible Effect of Diagonalization of High-Energy Electromagnetic Interactions with Respect to Particle Helicities (T)—È. M. Lipmanov and N. V. Mikheev. 16(6), 682-5 (Jun. 1973); CPM-7310E1530
- Lisin, V. I.**—Model of Reggeized One-Pion Exchange and the $pp \rightarrow pn\pi^+$ Reaction (T)—K. G. Boreskov, A. B. Kaidalov, V. I. Lisin, E. S. Nikolaevskii and L. A. Ponomarev. 15(2), 203-8 (Aug. 1972); CPM-7210C1464
- Tensor Constant of Weak Interaction Current of the Second Kind (T)**—V. I. Lisin and G. A. Lobov. 16(3), 353-4(L) (Mar. 1973); CPM-7306D0449
- Litvinenko, A. S.**—Determination of the Charge Distribution Parameters of Ni^{60} , Zn^{64} , and Zn^{66} by Elastic Electron Scattering (E)—A. S. Litvinenko, N. G. Shevchenko, N. G. Afanas'ev, A. Yu. Buki, G. A. Savitskii, V. M. Khvastunov, A. A. Khomich, I. I. Chkalov and V. P. Likhachev. 15(6), 611-3 (Dec. 1972); CPM-7302E0137
- Lizin, I. M.**—Problems of Reduction for Compact Groups (T)—I. M. Lizin and L. A. Shelepin. 15(1), 108-12 (Jul. 1972); CPM-7209C1060
- Lobashov, B. M.**—Nonconservation of P-Parity in γ Decay of K^{41} (E)—B. M. Lobashov, V. A. Nazarenko, N. A. Bozovoi, L. M. Smotriskii, G. I. Kharkevich and V. A. Knyaz'kov. 15(6), 632-5 (Dec. 1972); CPM-7302E0158
- Lobov, G. A.**—Tensor Constant of Weak Interaction Current of the Second Kind (T)—V. I. Lisin and G. A. Lobov. 16(3), 353-4(L) (Mar. 1973); CPM-7306D0449
- Lomakin, Yu. F.**—Production of Pairs of Λ^0 Hyperons in Interactions of π^- Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, Zh. K. Karamyan, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44-6 (Jul. 1972); CPM-7209C0996
- Investigation of the Reactions $\pi\pi \rightarrow \pi\pi^+\pi^- + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)**—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Lopatko, I. D.**—Study of C^{33} Excited States by Elastic Scattering of Polarized Protons by S^{32} (E)—I. D. Lopatko, V. I. Borovlov, G. B. Andreev and R. P. Slabospitskii. 16(2), 127-8 (Feb. 1973); CPM-7304E0230
- Loshchakov, I. I.**—Investigation of (p,pd)—Reaction on Light Nuclei at 50 MeV (E)—V. V. Boikov, B. V. Vel'berg, I. I. Loshchakov and V. I. Ostroumov. 15(3), 239-40 (Sep. 1972); CPM-7211A1868
- The $O^{16}(p, p\alpha)C^{12}$ Reaction with 50-MeV Protons (E)**—V. V. Boikov, B. V. Vel'berg, I. I. Loshchakov and V. I. Ostroumov. 16(5), 497-8 (May 1973); CPM-7309D1213
- Loskutov, Yu. M.**—Modification of the Coulomb Law in a Uniform Static Magnetic Field (T)—Yu. M. Loskutov and V. V. Skobelev. 15(4), 433-4 (Oct. 1972); CPM-7212D1978
- Lukin, E. S.**—Charged Particle Distribution in Inelastic Proton-Neutron Interactions at 19.2 GeV/c (E)—È. G. Boos, B. O. Zhaitykov, E. S. Lukin, A. M. Mosienko and R. A. Tursunov. 16(2), 187-8 (Feb. 1973); CPM-7304E0290
- Luk'yanov, A. A.**—Bound and Decaying States in the Theory of Resonance Nuclear Reactions (T)—A. A. Luk'yanov. 16(1), 45-9 (Jan. 1973); CPM-7304E0149
- Lukyanov, V. N.**—Analysis of Elastic Electron Scattering on Light Nuclei on the Basis of Symmetrized Fermi-Density Distribution (E/T)—Yu. N. Eldyshev, V. N. Lukyanov and Yu. S. Pol. 16(3), 282-6 (Mar. 1973); CPM-7306D0378
- Lyakhovitskii, V. N.**—The Hilbert-Schmidt Expansion for Three-Particle Amplitudes (T)—I. M. Narodetskii, E. S. Gal'pern and V. N. Lyakhovitskii. 16(4), 395-9 (Apr. 1973); CPM-7309D1111
- Lykasov, G. I.**—Rescattering Effects in the $pd \rightarrow ppn$ Reaction (T)—B. M. Golovin, G. I. Lykasov, A. M. Rozanova and A. V. Tarasov. 16(5), 602-4 (May 1973); CPM-7309D1318
- Lyubimov, A. L.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Lyutostanskii, Yu. S.**—Isobaric Configuration 0^+ States, Proton-Neutron Hole in a Spherical Nucleus (T)—Yu. V. Gaponov and Yu. S. Lyutostanskii. 16(3), 270-6 (Mar. 1973); CPM-7306D0366

- Machabelli, I. Z.**—Excitation Spectrum of Residual Nuclei in (π , nn) Reaction (E)—T. I. Kopaleishvili, I. Z. Machabelli and M. Sh. Chachkhunashvili. 15(6), 629-31 (Dec. 1972); CPM-7302E0155
- Magradze, B. A.**— K_{13} Decays and Chiral Symmetry Breaking (T)—B. A. Magradze, M. N. Tsugulea and M. A. Eliashvili. 15(3), 294-5 (Sep. 1972); CPM-7211A1923
- Makarov, M. M.**—The Charge-Exchange Reaction $\pi^+ \pi^- \rightarrow \pi^0 \pi^0$ and the S Meson (E/T)—M. M. Makarov and V. V. Nelyubin. 16(4), 426-8 (Apr. 1973); CPM-7309D1142
- Makaryunas, K. V.**—Ratios of the Internal Conversion Coefficients for M4 Transitions in the Nuclei $Tc^{121,123,125,127,129}$ (E)—R. A. Kalinauskas, K. V. Makaryunas and R. I. Davidonis. 15(4), 350-1 (Oct. 1972); CPM-7212D1895
- Makeev, V. V.**—Muon Production in the Process $\nu_\mu + N \rightarrow \mu^- + W^+ + N'$, Taking into Account the Neutrino Energy Spectrum (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(3), 304-8 (Mar. 1973); CPM-7306D0400
- The Process $\nu_\mu + N \rightarrow \mu^- + W^+ + N'$ and the Possibility of Detecting the W Boson from the Kinematic Characteristics of the Lepton from the Decay $W^+ \rightarrow l^+ + \nu_l$ (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(6), 686-9 (Jun. 1973); CPM-7310E1534
- Makhviladze, T. M.**—Cooperative Characteristics of Many-Particle Systems (T)—T. M. Makhviladze and L. A. Shelepin. 15(3), 335-40 (Sep. 1972); CPM-7211A1964
- Coherent States of Rotating Bodies (T)—T. M. Makhviladze and L. A. Shelepin. 15(5), 601-2 (Nov. 1972); CPM-7302E0127
- Maksyutenko, B. P.**—Genetic Connection between the Delayed-Neutron Radiation and the Fission Process (T)—B. P. Maksyutenko. 15(3), 251-5 (Sep. 1972); CPM-7211A1880
- Malakyan, Yu. P.**—Nonlinear Lagrangian of Two-Photon Production of Soft Pions (T)—Yu. P. Malakyan. 16(5), 571-5 (May 1973); CPM-7309D1287
- Malinovskii, E. I.**—Ionization Loss of High-Energy Electrons (E)—A. S. Belousov, E. I. Malinovskii, S. V. Rusakov and P. N. Shareiko. 16(2), 189-90 (Feb. 1973); CPM-7304E0292
- Malkin, L. Z.**—Prompt Neutrons and Kinetic Energy of Fragments from Spontaneous Fission of Cm^{244} (E)—I. D. Alkhazov, S. S. Kovalenko, O. I. Kostochkin, L. Z. Malkin, K. A. Petrzhak and V. I. Shpakov. 15(1), 12-6 (Jul. 1972); CPM-7209C0964
- Malyarov, V. V.**—Inverse Problem in Complex λ Plane in the Presence of Coulomb Interaction with Allowance for Absorption (T)—V. V. Malyarov and I. V. Poplavskii. 16(4), 483-5 (Apr. 1973); CPM-7309D1199
- Mamidzhanyan, É. A.**—Analysis of Theoretical and Experimental Data on the Multiplicity of Shower Particles in High-Energy Hadron Interactions (R)—V. V. Avakyan, M. I. Keropyan and É. A. Mamidzhanyan. 16(4), 423-5 (Apr. 1973); CPM-7309D1139
- Comparison of the Characteristics of the Interaction of Protons and Neutrons with C, Fe, and Pb Nuclei (E)—M. O. Azaryan, É. A. Mamidzhanyan, R. M. Martirosyan and R. A. Suleimanov. 16(6), 678-81 (Jun. 1973); CPM-7310E1526
- Manakov, N. L.**—Coulomb Green's Functions in the x -Representation and Relativistic Polarizability of a Hydrogen-Like Atom (T)—B. A. Zon, N. L. Manakov and L. P. Rapoport. 15(3), 282-6 (Sep. 1972); CPM-7211A1911
- Mandel'tsveig, V. B.**—Spin Effects in Production of Quasinuclear Mesons by Antiprotons (T)—O. D. Dal'karov, V. B. Mandel'tsveig and V. A. Khangulyan. 15(1), 100-2 (Jul. 1972); CPM-7209C1052
- Manida, S. N.**—Analysis of a Dual Fermion Model (T)—S. N. Manida and V. A. Franke. 16(4), 429-32 (Apr. 1973); CPM-7309D1145
- Manukyan, Zh. V.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, É. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412-6 (Apr. 1973); CPM-7309D1128
- Marinescu, M.**—Excitation Energies of the Spontaneously Fissile Isomers of Pu^{240} , Cm^{241} , and Bk^{243} in Reactions with α Particles (E)—I. Vylkov, N. Vylkov, Yu. P. Gangskii, M. Marinescu, A. A. Plevé, D. Poenaru and I. F. Kharisov. 16(3), 253-6 (Mar. 1973); CPM-7306D0349
- Marinov, M. S.**—Erratum: "Direct Production of Lepton Pairs by a Neutrino Beam in the Electromagnetic Field of a Nucleus [3, 497 (4)] (T)—M. S. Marinov, Yu. P. Nikitin, Yu. P. Orevkov and E. P. Shabalín. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Pair Production in an Electromagnetic Field (Case of Arbitrary Spin) (T)—M. S. Marinov and V. S. Popov. 15(6), 702-9 (Dec. 1972); CPM-7302E0228
- e^+e^- Pair Production in an Alternating Electric Field (T)—V. S. Popov and M. S. Marinov. 16(4), 449-56 (Apr. 1973); CPM-7309D1165
- Markov, V. N.**—Measurement of the Excitation Energy of the Spontaneously Fissioning Isomer $Pu^{239}(\gamma, n)$ (E)—Yu. P. Gangskii, V. N. Markov, I. F. Kharisov and Yu. M. Tsipenyuk. 16(2), 151-4 (Feb. 1973); CPM-7304E0254
- Martin, M.**—Missing-Mass Spectra Observed in the Reaction $\pi^+ + p \rightarrow p + X^-$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Eëh, M. N. Kienzle-Focacci, W. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550-3 (May 1973); CPM-7309D1266
- Martinska, G.**—Production of Pairs of Λ^0 Hyperons in Interactions of π^- Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, Zh. K. Karamyan, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44-6 (Jul. 1972); CPM-7209C0996
- Investigation of the Reactions $\pi\pi \rightarrow n\pi^+\pi^- + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzhev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Martirosyan, R. M.**—Comparison of the Characteristics of the Interaction of Protons and Neutrons with C, Fe, and Pb Nuclei (E)—M. O. Azaryan, É. A. Mamidzhanyan, R. M. Martirosyan and R. A. Suleimanov. 16(6), 678-81 (Jun. 1973); CPM-7310E1526
- Martynov, A. A.**—Absolute Probabilities of the α Decay of Even-Even Nuclei with $174 \leq A \leq 232$ and Superfluidity (T)—S. G. Kadmskii, V. E. Kalechits and A. A. Martynov. 16(4), 400-4 (Apr. 1973); CPM-7309D1116
- Marutyan, N. A.**—Investigation of Particles Produced at 90° in the Laboratory Frame in Nucleus-Nucleus Interactions (T)—N. A. Marutyan. 15(6), 654-5 (Dec. 1972); CPM-7302E0180
- Matachun, A. T.**—Influence of Single Scattering Processes on the Horizontal Fluxes of Cosmic Muons in Water (T)—A. T. Matachun, Yu. A. Trubkin and V. M. Fedorov. 16(2), 191-3 (Feb. 1973); CPM-7304E0294
- Matinyan, S. G.**—Electromagnetic Mechanism of Inelastic Hadron Collision at High Energies (T)—S. G. Matinyan, N. L. Ter-Isaakyan, V. A. Khoze and Yu. G. Shakhnazaryan. 16(4), 440-4 (Apr. 1973); CPM-7309D1156
- Matora, I. M.**—Probability of Spin Rotation of a Nonrelativistic Particle in an Inhomogeneous Magnetic Field (T)—I. M. Matora. 16(3), 349-50 (Mar. 1973); CPM-7306D0445
- Matusevich, V. A.**—Backward Scattering of Deutrons by Light Nuclei (E)—V. A. Matusevich, V. A. Solov'ev and I. P. Chernov. 15(4), 375-6 (Oct. 1972); CPM-7212D1920
- Matveenko, A. V.**—Method of Perturbed Stationary States (T)—A. V. Matveenko and L. N. Ponomarev. 16(3), 347-8 (Mar. 1973); CPM-7306D0443
- Matveev, V. A.**—Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Miroside, T. A. Chistyakova, I. V. Chuvilo and V. A. Shebanov. 15(6), 636-7 (Dec. 1972); CPM-7302E0162
- Asymptotic Estimates of the Quasipotential Parameters (T)—S. V. Goloskokov and V. A. Matveev. 16(6), 715-7 (Jun. 1973); CPM-7310E1563
- Matvienko, V. I.**—Search for Fission Isomers in the Radium Region (E)—I. M. Kuks, V. I. Matvienko, Yu. A. Nemilov, Yu. A. Selitskii and V. B. Funshtein. 16(2), 244(L) (Feb. 1973); CPM-7304E0347

- Mazarskii, V. L.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14–42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshv, P. Todorov, L. Urvan and N. G. Fadeev. 15 (5), 534–7 (Nov. 1972); CPM-7302E0060
- Medelin, G. V.**—Applicability of the Weizsäcker-Williams Approximation to Two-Photon Particle Production (T)—V. M. Budnev, I. F. Ginzburg, G. V. Medelin and V. G. Serbo. 16(2), 201–3 (Feb. 1973); CPM-7304E0304
- Melnikov, V. N.**—Quasiclassical Expansion and the Exponential Method (T)—V. A. Kolkunov and V. N. Melnikov. 16(5), 617–21 (May 1973); CPM-7309D1333
- Merzon, G. I.**—The Relativistic Rise in Ionization in Gas Track Detectors (T)—G. I. Merzon. 15(2), 157–60 (Aug. 1972); CPM-7210C1418
- Meshkovskii, A. G.**—Study of the Reaction $\pi^+p \rightarrow n + \pi^0$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163–5 (Aug. 1972); CPM-7210C1424
- Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Mirosidi, T. A. Chistyakova, I. V. Chuvilo and V. A. Shebanov. 15(6), 636–7 (Dec. 1972); CPM-7302E0162
- Measurement of the Branching Ratio $\Gamma(K_L \rightarrow \pi^+\pi^-\pi^0)/\Gamma(K_L \rightarrow \pi^+\pi^0\pi^0)$ (E)—V. V. Barmin, V. G. Barylov, G. D. Davidenko, V. S. Demidov, A. G. Dolgolenko, N. K. Zombkovskaya, A. G. Meshkovskii, G. S. Mirosidi, T. A. Chistyakova and V. A. Shebanov. 15(6), 638 (Dec. 1972); CPM-7302E0164
- Mezentsev, L. N.**—Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of ^{235}U —K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kosyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentsev and V. N. Okolovich. 15(1), 17–9 (Jul. 1972); CPM-7209C0969
- Michalak, S.**—Optical Radiation Excited by Nonrelativistic Charged Particles at Metal Surfaces (E)—A. P. Kobzev, S. Michalak, E. Rutkowski and I. M. Frank. 15(2), 184–8 (Aug. 1972); CPM-7210C1445
- Migdal, A. B.**—Remarks on the Analytic Properties of Wave Functions at Low Energies (T)—A. B. Migdal, A. M. Perelomov and V. S. Popov. 16(1), 120–1(L) (Jan. 1973); CPM-7304E0224
- Two Interacting Particles in a Potential Well (T)—A. B. Migdal. 16(2), 238–41 (Feb. 1973); CPM-7304E0341
- Mikaelyan, L. A.**—Cross Sections and Spectra of Particles Appearing in Processes with the Participation of Reactor Antineutrinos (T)—L. A. Mikaelyan and S. A. Fayans. 15(5), 543–6 (Nov. 1972); CPM-7302E0069
- Mikhailov, V. M.**—Influence of Spin and Quadrupole Interactions on the Properties of the State with $K^\pi = 1^+$ in Deformed Even-Even Nuclei (T)—V. M. Mikhailov and V. V. Pogosyan. 16(2), 162–7 (Feb. 1973); CPM-7304E0265
- Mikhailov, Yu. V.**—Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674–7 (Jun. 1973); CPM-7310E1522
- Mikhailova, M. A.**—Splitting of the 5793 keV Doublet in the Ac^{225} Spectrum (E)—N. A. Golovkov, B. S. Dzehelepov, R. B. Ivanov, M. A. Mikhailova and V. G. Chumin. 15(4), 349 (Oct. 1972); CPM-7212D1894
- Mikhaleva, T. N.**—Correlation of α Particles and γ Rays from the Reaction $\text{Al}^{27}(p, \alpha_1\gamma)\text{Mg}^{24}$ for 6.40–MeV Protons (E)—S. S. Vasil'ev, A. S. Dem'yanova, V. S. Zazulin, S. D. Kostyuchenkov, T. N. Mikhaleva, S. F. Nikyaki and D. L. Chupronov. 15(4), 367–8 (Oct. 1972); CPM-7212D1912
- Mikheev, N. V.**—Possible Effect of Diagonalization of High-Energy Electromagnetic Interactions with Respect to Particle Helicities (T)—E. M. Lipmanov and N. V. Mikheev. 16(6), 682–5 (Jun. 1973); CPM-7310E1530
- Miroshnichenko, I. I.**—Study of (γ, T) Reactions in Nuclei with Bremsstrahlung Energies up to 1200 MeV (E)—Yu. P. Antuf'ev, V. L. Agranovich, V. B. Ganenkov, V. S. Kuz'menko, I. I. Miroshnichenko, P. V. Sorokin and S. V. Shalatskii. 15(4), 357–60 (Oct. 1972); CPM-7212D1902
- Mirosidi, G. S.**—Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Mirosidi, T. A. Chistyakova, I. V. Chuvilo and V. A. Shebanov. 15(6), 636–7 (Dec. 1972); CPM-7302E0162
- Measurement of the Branching Ratio $\Gamma(K_L \rightarrow \pi^+\pi^-\pi^0)/\Gamma(K_L \rightarrow \pi^+\pi^0\pi^0)$ (E)—V. V. Barmin, V. G. Barylov, G. D. Davidenko, V. S. Demidov, A. G. Dolgolenko, N. K. Zombkovskaya, A. G. Meshkovskii, G. S. Mirosidi, T. A. Chistyakova and V. A. Shebanov. 15(6), 638 (Dec. 1972); CPM-7302E0164
- Mishchenko, V. M.**— Mn^{54} Levels (E)—V. M. Mishchenko, A. I. Popov and V. E. Storizhko. 15(4), 343–6 (Oct. 1972); CPM-7212D1888
- Mitin, A. A.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14–42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshv, P. Todorov, L. Urvan and N. G. Fadeev. 15 (5), 534–7 (Nov. 1972); CPM-7302E0060
- Mitrofanova, A. V.**—Photofission and Photofragmentation of Tantalum (E)—V. I. Kasilov, A. V. Mitrofanova, Yu. N. Ranyuk and P. V. Sorokin. 15(3), 228–31 (Sep. 1972); CPM-7211A1857
- Anisotropy in the Angular Distribution of Fragments from Photofission at High Energies (E)—N. A. Demekhina, V. I. Kasilov, A. V. Mitrofanova, Yu. N. Ranyuk and P. V. Sorokin. 16 (5), 502–4 (May 1973); CPM-7309D1218
- Mitsel'makher, G. B.**—On the Decay Mode $\mu^+ \rightarrow e^+ \nu_e \bar{\nu}_\mu e^-$ (T)—D. Yu. Bardin, Ts. G. Istatkov and G. B. Mitsel'makher. 15(2), 161–2 (Aug. 1972); CPM-7210C1422
- Mkrtychyan, G. G.**—Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi\pi^+\pi^-\pi^0 \rightarrow e^+e^-n$ at $E_{\text{kin}} = 275$ MeV (E)—S. F. Berezhnev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, E. V. Kuptsov, G. G. Mkrtychyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. 16(1), 99–102 (Jan. 1973); CPM-7304E0203
- Morozov, B. A.**—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650–3 (Dec. 1972); CPM-7302E0176
- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong Bien and M. G. Shafranov. 16(1), 50–6 (Jan. 1973); CPM-7304E0154
- Morozova, P. V.**—Production of Fast Helium and Triton Nuclei in an Interaction of High-Energy Pions with Heavy Emulsion Nuclei (E)—A. I. Borisenko, A. P. Kazanskaya, P. V. Morozova, Zh. S. Takibaev and N. S. Titova. 15(4), 419–22 (Oct. 1972); CPM-7212D1964
- Mosienko, A. M.**—Charged Particle Distribution in Inelastic Proton-Neutron Interactions at 19.2 GeV/c (E)—E. G. Boos, B. O. Zhaitykov, E. S. Lukin, A. M. Mosienko and R. A. Tursunov. 16(2), 187–8 (Feb. 1973); CPM-7304E0290
- Study of Four Prong pp Interaction at a Momentum 19.1 GeV/c (E)—Zh. S. Takibaev, E. G. Boos, L. A. San'ko, T. I. Mukhordova, A. M. Mosienko, K. G. Zaitsev and K. V. Sharapov. 16(5), 537–41 (May 1973); CPM-7309D1253

- Mostepanenko, V. N.**—Broken Symmetry in the K^0 -Meson Theory and the Goldstone Theorem (T)—A. A. Grib and V. N. Mostepanenko. 15(3), 290-3 (Sep. 1972); CPM-7211A1919
- Mrachkovskii, O. M.**—Searches for the Spontaneously Fissioning Isomer Pu^{240m} in the Thermal-Neutron Capture Reaction (E)—G. V. Val'skii, O. M. Mrachkovskii, G. A. Petrov and Yu. S. Pleva. 16(4), 374-5 (Apr. 1973); CPM-7309D1090
- Mukhamedzhanov, A. M.**—Peripheral Model for a Stripping Reaction to a Resonant State (T)—P. O. Dzhamalov, E. I. Dolinskii and A. M. Mukhamedzhanov. 15(2), 147-53 (Aug. 1972); CPM-7210C1408
- Mukhin, K. N.**—The Reaction $\pi p \rightarrow \pi^+ n$ at $p_r = 4.45$ BeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, M. M. Sulkovskaya and A. F. Sustavov. 15(2), 166-8 (Aug. 1972); CPM-7210C1427
- $\pi p \rightarrow \pi^+ p$ Reaction at $p_r = 4.45$ GeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, V. A. Suetin, M. M. Sulkovskaya and A. F. Sustavov. 16(3), 298-9 (Mar. 1973); CPM-7306D0394
- Mukhordova, T. I.**—Study of Four Prong pp Interaction at a Momentum 19.1 GeV/c (E)—Zh. S. Takibaev, E. G. Boos, L. A. San'ko, T. I. Mukhordova, A. M. Mosienko, K. G. Zaitsev and K. V. Sharapov. 16(5), 537-41 (May 1973); CPM-7309D1253
- Mur, V. D.**—Scattering of Fast Particles by an Effectively Growing Potential (T)—N. P. Kalashnikov and V. D. Mur. 16(5), 613-6 (May 1973); CPM-7309D1329
- Muradyan, E. G.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412-6 (Apr. 1973); CPM-7309D1128
- Musakhanov, M. M.**—Radiative Pion Capture by Hydrogen and Sign of Neutral Pion Decay Amplitude (E)—L. I. Lapidus and M. M. Musakhanov. 15(5), 558-60 (Nov. 1972); CPM-7302E0084
- ## N
- Nabichvishvili, D. S.**—Production of Slow Pions in Interactions between High Energy Particles and Nuclei (E)—N. I. Kostanashvili, G. I. Debedevich, D. S. Nabichvishvili and G. I. Kharashvili. 16(5), 542-5 (May 1973); CPM-7309D1258
- Nadzhakov, E.**—Lifetimes of the Rotational Levels of Yb^{164} Measured by the Doppler Effect in the Recoil Nuclei (E)—B. Bochev, S. A. Karamyan, T. Kutsarova, Ya. Ukhrein, E. Nadzhakov, Ts. Venkova and R. Kalpakchieva. 16(4), 355-8 (Apr. 1973); CPM-7309D1071
- Nagy, E.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Narodetskii, I. M.**—The Hilbert-Schmidt Expansion for Three-Particle Amplitudes (T)—I. M. Narodetskii, E. S. Gal'pern and V. N. Lyakhovitskii. 16(4), 395-9 (Apr. 1973); CPM-7309D1111
- Nazarenko, V. A.**—Nonconservation of P-Parity in γ Decay of K^{41} (E)—B. M. Lobashov, V. A. Nazarenko, N. A. Bozovoi, L. M. Smotritskii, G. I. Kharkevich and V. A. Knyaz'kov. 15(6), 632-5 (Dec. 1972); CPM-7302E0158
- Nechin, Yu. A.**—Generation and Interaction of Muons with Energies $E_\mu \approx 10^{12}$ eV (E)—G. B. Khristiansen, O. V. Vedenov and Yu. A. Nechin. 15(5), 538-42 (Nov. 1972); CPM-7302E0064
- Nelyubin, V. V.**—The Charge-Exchange Reaction $\pi^+ \pi^- \rightarrow \pi^0 \pi^0$ and the S Meson (E/T)—M. M. Makarov and V. V. Nelyubin. 16(4), 426-8 (Apr. 1973); CPM-7309D1142
- Nemenov, L. L.**—Atomic Decays of Elementary Particles (T)—L. L. Nemenov. 15(5), 582-4 (Nov. 1972); CPM-7302E0108
- Atomic Decays of K^0_L Mesons (T)—L. L. Nemenov. 16(1), 67-9 (Jan. 1973); CPM-7304E0171
- Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi p \rightarrow \pi^+ n$ at $E_{\text{lab}} = 275$ MeV (E)—S. F. Berezhnev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, A. V. Kuptsov, G. G. Mkrtchyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. 16(1), 99-102 (Jan. 1973); CPM-7304E0203
- Nemets, O. F.**—Use of the Perturbed Angle ϵ_{casc} Correlation to Measure the Hg^{197} 133-keV State g-Factor (E)—N. D. Kornienko, B. G. Kul'Chinskii, A. I. Levon and O. F. Nemets. 15(4), 353-6 (Oct. 1972); CPM-7212D1898
- Nemilov, Yu. A.**—Search for Fission Isomers in the Radium Region (E)—I. M. Kuks, V. I. Matvienko, Yu. A. Nemilov, Yu. A. Selitskii and V. B. Funshstein. 16(2), 244(L) (Feb. 1973); CPM-7304E0347
- Nersesov, E. A.**—Conservation of the Isospin of Low-Lying Collective States of Heavy Nuclei (T)—E. A. Nersesov. 15(2), 121-3 (Aug. 1972); CPM-7210C1382
- Nesterov, B. V.**—Gamma Radiation in Intermediate Neutron Radioactive Capture (E)—A. F. Gamalii, B. V. Zemtsev, V. B. Ivanov, B. V. Nesterov and L. P. Kham'yanov. 15(1), 1-4 (Jul. 1972); CPM-7209C0953
- Nesterov, V. G.**—Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of Cf^{249} (E)—K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kosyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentshev and V. N. Okolovich. 15(1), 17-9 (Jul. 1972); CPM-7209C0969
- Nevskii, P. L.**—Muon Production in the Process $\nu_\mu + N \rightarrow \mu^- + W^+ + N'$, Taking into Account the Neutrino Energy Spectrum (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(3), 304-8 (Mar. 1973); CPM-7306D0400
- The Process $\nu_\mu + N \rightarrow \mu^- + W^+ + N'$ and the Possibility of Detecting the W Boson from the Kinematic Characteristics of the Lepton from the Decay $W^+ \rightarrow l^+ + \nu_l$ (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(6), 686-9 (Jun. 1973); CPM-7310E1534
- Nguyen, Tack An**—Angular Distribution of Neutrons Produced by Irradiating Ge, Mo, Ag, and Pr Targets with Heavy Ions of C, O, Ne, and Ar (E)—A. S. Il'inov, S. A. Karamyan, Tack An Nguyen and K. N. Sharifov. 16(3), 260-2 (Mar. 1973); CPM-7306D0356
- Nguyen, Tak An**—Energy Balance in Fission by Heavy Ions (E)—S. A. Karamyan, Tak An Nguyen and K. N. Sharifov. 15(3), 244-8 (Sep. 1972); CPM-7211A1873
- Nguyen, Van Hieu**—Remarks on the Nonuniqueness of the Effective Lagrangian in the Chiral $SU(2) \otimes SU(2)$ Symmetry (T)—Van Hieu Nguyen. 15(5), 565-6 (Nov. 1972); CPM-7302E0091
- Nguyen, Vin Kuang**—Discrete Symmetries in Electrodynamics (T)—V. I. Strazhev and Vin Kuang Nguyen. 16(3), 343-6 (Mar. 1973); CPM-7306D0439
- Nikitin, A. V.**—Analysis of the $np \rightarrow ppp\pi$ Reaction from the Point of View of a Reggeized OPE Model (E)—K. G. Boreskov, A. P. Gasparyan, A. B. Kaidalov, A. V. Nikitin, Yu. A. Troyan and L. A. Ponomarev. 15(3), 309-13 (Sep. 1972); CPM-7211A1938
- Nikitin, V. A.**—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650-3 (Dec. 1972); CPM-7302E0176
- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyung Bien and M. G. Shafranov. 16(1), 50-6 (Jan. 1973); CPM-7304E0154
- Nikitin, Yu. P.**—Erratum: "Direct Production of Lepton Pairs by a Neutrino Beam in the Electromagnetic Field of a Nucleus [3, 497 (4)] (T)—M. S. Marinov, Yu. P. Nikitin, Yu. P. Orevkov and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Erratum: Angular and Momentum Distributions of μ^- Mesons in the Reaction $\nu + Z \rightarrow \mu^- + W^+ + Z$ [14, 235 (2)] (T)—E. D. Zhizhin, Yu. P. Nikitin, G. V. Rozhnov and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070

- Erratum: Angular and Momentum Distributions of μ^+ Mesons Resulting from the Decay of the W^+ Boson in the Reaction $\nu + Z \rightarrow \mu^- + Z + W^+$ [14, 236 (2)] (T)—A. V. Berkov, E. D. Zhizhin, Yu. P. Nikitin and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Muon Production in the Process $\nu_\mu + N \rightarrow \mu^- + W^+ + N'$, Taking into Account the Neutrino Energy Spectrum (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(3), 304-8 (Mar. 1973); CPM-7306D0400
- The Process $\nu_\mu + N \rightarrow \mu^- + W^+ + N'$ and the Possibility of Detecting the W Boson from the Kinematic Characteristics of the Lepton from the Decay $W^+ \rightarrow l^+ + \nu_l$ (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(6), 686-9 (Jun. 1973); CPM-7310E1534
- Scaling and Hydrodynamic Theory of Multiple Processes (E/T)—E. I. Daibog, Yu. P. Nikitin and I. L. Rozental'. 16(6), 724-6 (Jun. 1973); CPM-7310E1572
- Nikityuk, L. N.—Probability of (μ^-, ν) Process on La^{139} and Pb^{208} Nuclei (E)—G. G. Bunatyan, L. Vil'gel'mova, V. S. Evseev, L. N. Nikityuk, V. N. Pokrovskii, V. N. Rybakov and I. A. Yutlandov. 15(5), 526-7 (Nov. 1972); CPM-7302E0052
- Nikolaev, N. N.—Single Hyperon Production and Weak Decays of the $3/2^+$ Decuplet.—N. N. Nikolaev. 15(5), 547-8 (Nov. 1972); CPM-7302E0073
- Electromagnetic Interaction of the Muon and the $K_L \rightarrow 2\mu$ Decay (T)—G. V. Grigoryan, N. N. Nikolaev and L. B. Okun'. 15(5), 554-5 (Nov. 1972); CPM-7302E0080
- Reactions of Single Σ and Λ Hyperon Production (E)—N. N. Nikolaev. 15(6), 687-90 (Dec. 1972); CPM-7302E0213
- Nikolaev, V. M.—Some Peculiarities of Interaction of Ne^{20} and C^{12} Ions with Nuclei at 10-17 MeV/Nucleon (E)—V. M. Nikolaev and V. A. Shchegolev. 16(3), 263-5 (Mar. 1973); CPM-7306D0359
- Nikolaevskii, E. S.—Model of Reggeized One-Pion Exchange and the $pp \rightarrow pn\pi^+$ Reaction (T)—K. G. Boreksky, A. B. Kaidalov, V. I. Lysin, E. S. Nikolaevskii and L. A. Ponomarev. 15(2), 203-8 (Aug. 1972); CPM-7210C1464
- Nikolina, A. A.—Angular Distribution of Low Energy Neutrons from Nuclear μ^- Capture in Sulfur and Calcium (E)—I. Wojtkowska, V. S. Evseev, T. Kozlowski, A. A. Nikolina and V. S. Roganov. 15(5), 523-5 (Nov. 1972); CPM-7302E0049
- Nikol'skii, S. I.—Development of Superhigh-Energy Electron-Photon Showers in the Atmosphere (T)—D. D. Krasil'nikov, V. P. Kulakovskaya and S. I. Nikol'skii. 15(1), 47-50 (Jul. 1972); CPM-7209C0999
- Nikyakii, S. F.—Correlation of α Particles and γ Rays from the Reaction $\text{Al}^{27}(p, \alpha_1\gamma)\text{Mg}^{24}$ for 6.40-MeV Protons (E)—S. S. Vasil'ev, A. S. Dem'yanova, V. S. Zazulin, S. D. Kostyuchenkov, T. N. Mikhaleva, S. F. Nikyakii and D. L. Chupronov. 15(4), 367-8 (Oct. 1972); CPM-7212D1912
- Niledvin, S. D.—Partial Widths and Strong Coupling of Channels (T)—S. I. Grishanova, S. D. Niledvin, N. N. Titarenko and E. L. Yarovskii. 15(3), 264-5 (Sep. 1972); CPM-7211A1893
- Nilov, A. F.—Investigation of the Reaction $\pi\pi \rightarrow p\bar{p}$ and $\pi\pi \rightarrow p\bar{n}$ at Incident Momentum 3-8 GeV/c by the Complex Angular Momentum Method (E)—V. N. Guzhavin, A. B. Kaidalov and A. F. Nilov. 15(1), 93-6 (Jul. 1972); CPM-7209C1045
- Nomokonov, P. V.—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650-3 (Dec. 1972); CPM-7302E0176
- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. I. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 16(1), 50-6 (Jan. 1973); CPM-7304E0154
- Normuratov, F.—Measurement of Compound-Nucleus Lifetime by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, A. M. Kucher, F. Normuratov and Yu. Ts. Oganessian. 16(2), 140-3 (Feb. 1973); CPM-7304E0243
- Lifetimes of Excited Compound Nuclei in the Range $79 < Z < 89$, Measured by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, F. Normuratov and S. P. Tret'yakova. 16(3), 249-52 (Mar. 1973); CPM-7306D0345
- Novikov, L. S.—Study of the Reaction $\pi^- + p \rightarrow n + \pi^0$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163-5 (Aug. 1972); CPM-7210C1424
- Investigation of $\pi^- + p \rightarrow n + 6\gamma$ Reaction at 2.94 GeV/c (E)—L. S. Novikov. 15(3), 276-7 (Sep. 1972); CPM-7211A1905
- Novikov, V. A.—Bounds on the Scattering Amplitudes at High Energies (T)—V. A. Novikov. 16(3), 337-9 (Mar. 1973); CPM-7306D0433
- Nurpeisov, B.—Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of Cf^{249} (E)—K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kosyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentshev and V. N. Okolovich. 15(1), 17-9 (Jul. 1972); CPM-7209C0969
- Nyunin, M. I.—Investigation of Underground Nuclear Interactions of Cosmic Ray Muons (E)—I. B. Bezrukov, V. I. Beresnev, G. T. Zatselin, M. I. Nyunin, O. G. Ryazhskaya and L. N. Stepanets. 15(2), 176-83 (Aug. 1972); CPM-7210C1437

D

- Obukhov, Yu. V.—Dependence of the Depolarization of Negative Muons on the Molecular Weight and Temperature in Organic Compounds (E)—A. A. Dzhuhrayev, V. S. Evseev, Yu. V. Obukhov and V. S. Roganov. 16(1), 60-3 (Jan. 1973); CPM-7304E0164
- Depolarization of Negative Muons in Monomeric and Polymeric Organic Compounds (T)—A. A. Dzhuhrayev, V. S. Evseev, Yu. V. Obukhov, V. S. Roganov and N. I. Kholodov. 16(1), 64-6 (Jan. 1973); CPM-7304E0168
- Oganessian, Yu. Ts.—Production of Gold Isotopes in Bombardment of U^{238} by Xe^{136} Ions (E)—Yu. Ts. Oganessian, O. A. Orlova, Yu. É. Penionzhkevich, K. A. Gavrilov and Kim De Yen. 16(2), 138-9 (Feb. 1973); CPM-7304E0241
- Measurement of Compound-Nucleus Lifetime by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, A. M. Kucher, F. Normuratov and Yu. Ts. Oganessian. 16(2), 140-3 (Feb. 1973); CPM-7304E0243
- Average Number of Prompt Neutrons in the Spontaneous Fission of Fm^{256} (E)—M. Davokskii, Yu. A. Lazarev and Yu. Ts. Oganessian. 16(6), 641-2 (Jun. 1973); CPM-7310E1489
- Okolovich, V. N.—Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of Cf^{249} (E)—K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kosyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentshev and V. N. Okolovich. 15(1), 17-9 (Jul. 1972); CPM-7209C0969
- Po^{210} Fission in $\text{Pb}^{208}(\alpha, f)$ Reaction (E)—M. G. Itkis, K. G. Kuvatov, V. N. Okolovich, G. Ya. Ruskina, G. N. Smirenkin and A. S. Tishin. 16(2), 144-50 (Feb. 1973); CPM-7304E0247
- Study of Phase Transition in the Density of the Excited States of Even-Even Pb Nuclei in the (α, f) Reaction (E)—V. N. Okolovich, M. G. Itkis, K. G. Kuvatov and G. N. Smirenkin. 16(6), 631-3 (Jun. 1973); CPM-7310E1479
- Okun', L. B.—Shrinkage Singularities and Asymptotic Behavior of the Weak Interaction Cross Section (T)—A. D. Dolgov, V. I. Zakharov and L. B. Okun'. 15(4), 451-6 (Oct. 1972); CPM-7212D1996
- Possible CPT-Breaking Effects and the Decay $K_L \rightarrow 2\mu$ (T)—E. B. Bogomol'ny, A. D. Dolgov, V. I. Zakharov, L. B. Okun' and M. V. Terent'ev. 15(5), 549-53 (Nov. 1972); CPM-7302E0075
- Electromagnetic Interaction of the Muon and the $K_L \rightarrow 2\mu$ Decay (T)—G. V. Grigoryan, N. N. Nikolaev and L. B. Okun'. 15(5), 554-5 (Nov. 1972); CPM-7302E0080
- The $K_L^0 \rightarrow \mu^+ \mu^-$ Decay and a Possible Anomalous Muon-Hadron Interaction (T)—E. B. Bogomol'ny, A. D. Dolgov, V. I. Zakharov, L. B. Okun', M. A. Shifman and M. Zh. Shmatikov. 16(1), 70-6 (Jan. 1973); CPM-7304E0174
- $K_L \rightarrow 2\mu$ Decay and the Possible Existence of a Light Vector Meson (T)—A. D. Dolgov, A. G. Dolgolenko, V. I. Zakharov and L. B. Okun'. 16(2), 209-13 (Feb. 1973); CPM-7304E0312

- Ol'khovskii, V. S.**—Concerning the Description of Direct ($n,2n$) Processes in Some Nuclei (T)—S. N. Ezhov and V. S. Ol'khovskii. 16(2), 185-6 (Feb. 1973); CPM-7304E0288
- Omelaenko, A. S.**—Recoil-Nucleon Polarization in Pion Photoproduction and Electroproduction (T)—A. S. Omelaenko. 15(3), 304-6 (Sep. 1972); CPM-7211A1933
- Onuchin, A. P.**—Observation of Double e^+e^- Pair Production (E)—V. E. Balakin, A. D. Bukin, L. M. Kurdadze, A. P. Onuchin, E. V. Pakhtusova, S. I. Serebnyakov, V. A. Sidorov and A. G. Khabakhpashev. 16(4), 407-9 (Apr. 1973); CPM-7309D1123
- Orevkov, Yu. P.**—Erratum: "Direct Production of Lepton Pairs by a Neutrino Beam in the Electromagnetic Field of a Nucleus [3, 497 (4)] (T)—M. S. Marinov, Yu. P. Nikitin, Yu. P. Orevkov and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Orlova, N. V.**—Investigation of Angular Correlations in the Reactions $B^{10}(\alpha, d_1)p$, $C^{12}_{4,43}$, $B^{11}(\alpha, t_1)p$, $C^{12}_{4,43}$, and $C^{12}(\alpha, \alpha_1 t_1)C^{12}_{4,43}$ (E)—A. A. El-Kamhavi, G. S. Gurevich, N. V. Orlova, A. V. Spasskii, I. B. Teplov and D. A. Shalabaev. 15(3), 241-3 (Sep. 1972); CPM-7211A1870
- Orlova, O. A.**—Production of Gold Isotopes in Bombardment of U^{238} by Xe^{136} Ions (E)—Yu. Ts. Oganesyan, O. A. Orlova, Yu. É. Penionzhkevich, K. A. Gavrilov and Kim De Yen. 16(2), 138-9 (Feb. 1973); CPM-7304E0241
- Ostroumov, V. I.**—Investigation of (p,pd) Reaction on Light Nuclei at 50 MeV (E)—V. V. Boikov, B. V. Vel'berg, I. I. Loshchakov and V. I. Ostroumov. 15(3), 239-40 (Sep. 1972); CPM-7211A1868
- The $O^{16}(p, p\alpha)C^{12}$ Reaction with 50-MeV Protons (E)—V. V. Boikov, B. V. Vel'berg, I. I. Loshchakov and V. I. Ostroumov. 16(5), 497-8 (May 1973); CPM-7309D1213
- Otroshchenko, G. A.**— CF^{229} Fission Cross Section in the Neutron Energy Range 0.16-1.6 MeV (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, V. N. Kosyakov, G. A. Otroshchenko, L. V. Chistyakov, V. A. Shigin and V. M. Shubko. 15(1), 20-1 (Jul. 1972); CPM-7209C0972
- Angular Distributions of Fragments in Neutron-Induced Fission of Cf^{249} (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, G. A. Otroshchenko and V. A. Shigin. 16(4), 372-3 (Apr. 1973); CPM-7309D1088
- Cross Sections for Neutron-Induced Fission of Th^{228} (E)—P. E. Vorotnikov, Z. S. Gladkikh, A. V. Davydov, S. M. Dubrovina, G. A. Otroshchenko, E. S. Pal'shin, V. A. Shigin and V. M. Shubko. 16(5), 505-6 (May 1973); CPM-7309D1221
- Ots, I.**—Polarization Phenomena in Direct Reactions with Simple Diagrams Being Taken into Account (T)—I. Ots. 15(5), 515-9 (Nov. 1972); CPM-7302E0041
- Ovcharenko, V. I.**—Derivation of Bohr-Mottelson Collective Model Equations on the Basis of the Many-Body Problem Hamiltonian (T)—A. Ya. Dzyublik, V. I. Ovcharenko, A. I. Steshenko and G. F. Filippov. 15(5), 487-92 (Nov. 1972); CPM-7302E0013
- Ovsyannikova, R. E.**—Elastic Scattering of 26.6-MeV α Particles by Light Nuclei (E)—B. I. Kuznetsov, R. E. Ovsyannikova and I. P. Chernov. 15(4), 377-8 (Oct. 1972); CPM-7212D1922
- P**
- Pakhtusova, E. V.**—Observation of Double e^+e^- Pair Production (E)—V. E. Balakin, A. D. Bukin, L. M. Kurdadze, A. P. Onuchin, E. V. Pakhtusova, S. I. Serebnyakov, V. A. Sidorov and A. G. Khabakhpashev. 16(4), 407-9 (Apr. 1973); CPM-7309D1123
- Pal'shin, E. S.**—Cross Sections for Neutron-Induced Fission of Th^{228} (E)—P. E. Vorotnikov, Z. S. Gladkikh, A. V. Davydov, S. M. Dubrovina, G. A. Otroshchenko, E. S. Pal'shin, V. A. Shigin and V. M. Shubko. 16(5), 505-6 (May 1973); CPM-7309D1221
- Pan'yan, M. G.**—Relative Yields of Xenon Isotopes in Np^{237} and Np^{238} Fission by Neutrons (E)—K. A. Petrzhak, M. G. Pan'yan, V. F. Teplykh and B. M. Aleksandrov. 15(5), 482-3 (Nov. 1972); CPM-7302E0008
- Paramonova, I. N.**—Energy Dependence of $\bar{\nu}$ in the Fission of U^{235} by Fast Neutrons (E)—M. V. Savin, Yu. A. Khokhlov, A. E. Savel'ev and I. N. Paramonova. 16(6), 638-40 (Jun. 1973); CPM-7310E1486
- Pasechnik, M. V.**—Level Density of Compound Nuclei with $A=130-200$ and Other Nuclear Properties (E)—V. P. Vertebnyi, A. I. Kalchenko and M. V. Pasechnik. 16(1), 19-20 (Jan. 1973); CPM-7304E0123
- Paskhalov, Yu. I.**—Lateral Distribution of Electrons in an Inhomogeneous Atmosphere (T)—V. V. Guzhavin, I. P. Ivanenko and Yu. I. Paskhalov. 16(4), 417-20 (Apr. 1973); CPM-7309D1133
- Paskhalov, Yu. P.**—Angular and Spatial Distributions of Particles of Electron-Photon Shower Particles (T)—V. V. Guzhavin, I. P. Ivanenko, A. A. Kirillov and Yu. P. Paskhalov. 15(3), 278-81 (Sep. 1972); CPM-7211A1907
- Pavlichenkov, I. M.**—Accuracy of the K-Harmonics Method (T)—I. M. Pavlichenkov. 15(1), 24-7 (Jul. 1972); CPM-7209C0976
- Pazsit, A.**—Cross Sections of the Reactions $^{113}(n,n')^{113m}$ and $^{103}(n,n')^{103m}$ (E)—A. Pazsit and J. Csikai. 15(3), 232-3 (Sep. 1972); CPM-7211A1861
- Penev, I.**—Investigation of the Decay of Tl^{194} (E)—B. Amov, T. Vandlik, J. Vandlik, Ts. Vylov, Zh. Zhelev, N. G. Zaitseva, I. Penev and H. Tyroff. 16(5), 487-90 (May 1973); CPM-7309D1203
- Penionzhkevich, Yu. É.**—Production of Gold Isotopes in Bombardment of U^{238} by Xe^{136} Ions (E)—Yu. Ts. Oganesyan, O. A. Orlova, Yu. É. Penionzhkevich, K. A. Gavrilov and Kim De Yen. 16(2), 138-9 (Feb. 1973); CPM-7304E0241
- Perelomov, A. M.**—Remarks on the Analytic Properties of Wave Functions at Low Energies (T)—A. B. Migdal, A. M. Perelomov and V. S. Popov. 16(1), 120-1(L) (Jan. 1973); CPM-7304E0224
- Perlovskii, L. I.**—Parton Model for $\gamma\gamma$ Scattering (T)—L. I. Perlovskii and É. P. Kheifets. 15(4), 435-7 (Oct. 1972); CPM-7212D1980
- Pershin, I. I.**—Study of the Reaction $\pi^+ + p \rightarrow n + m\pi$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163-5 (Aug. 1972); CPM-7210C1424
- Peshekhonov, V. D.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Gonorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshv, P. Torodor, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Petrauskas, A.**—Calculation of Nuclear Deformation of the $U(3(A-1))$ Scheme Model (T)—A. Petrauskas, G. Kamuntavicius and K. Jankauskas. 16(2), 168-72 (Feb. 1973); CPM-7304E0271
- Petrov, G. A.**—Searches for the Spontaneously Fissioning Isomer Pu^{240m} in the Thermal-Neutron Capture Reaction (E)—G. V. Val'skii, O. M. Mrachkovskii, G. A. Petrov and Yu. S. Pleva. 16(4), 374-5 (Apr. 1973); CPM-7309D1090
- Petrov, L. A.**—Experiments Aimed at Finding Proton Decay from the Ground State (E)—D. D. Bogdanov, V. P. Bochinn, V. A. Karnakhov and L. A. Petrov. 16(5), 491-6 (May 1973); CPM-7309D1207
- Petrov, N. M.**—Factorization of Two-Particle t-Matrix and the Three-Nucleon Problem with a Gaussian Potential (T)—N. M. Petrov. 16(6), 733-6 (Jun. 1973); CPM-7310E1581
- Petrushkin, A. I.**—Total Cross Sections of the π^+p and π^+d Interactions in the Momentum Region 15-60 GeV/c and the Glauber Correction (E)—Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. I. Petrushkin, Yu. D. Prokoshkin and D. A. Stoyanova. 15(5), 530-3 (Nov. 1972); CPM-7302E0056
- Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrushkin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674-7 (Jun. 1973); CPM-7310E1522
- Petrzhak, K. A.**—Prompt Neutrons and Kinetic Energy of Fragments from Spontaneous Fission of Cm^{244} (E)—I. D. Alkhasov, S. S. Kovalenko, O. I. Kostochkin, L. Z. Malkin, K. A. Petrzhak and V. I. Shpakov. 15(1), 12-6 (Jul. 1972); CPM-7209C0964
- Relative Yields of Xenon Isotopes in Np^{237} and Np^{238} Fission by Neutrons (E)—K. A. Petrzhak, M. G. Pan'yan, V. F. Teplykh and B. M. Aleksandrov. 15(5), 482-3 (Nov. 1972); CPM-7302E0008
- Pilipenko, Yu. K.**—Investigation of Elastic p Scattering in the Diffraction Cone Region in the Energy Range 10-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650-3 (Dec. 1972); CPM-7302E0176

- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8-70 GeV (E)**—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyung Bien and M. G. Shafranava. 16(1), 50-6 (Jan. 1973); CPM-7304E0154
- Pirogov, Yu. F.**—Vacuum Exchange in the Triple Reggeon Region (T)—Yu. F. Pirogov. 16(3), 351-2(L) (Mar. 1973); CPM-7306D0447
- Pleva, Yu. S.**—Searches for the Spontaneously Fissioning Isomer $\text{Pu}^{240\text{m}}$ in the Thermal-Neutron Capture Reaction (E)—G. V. Val'skii, O. M. Mrachkovskii, G. A. Petrov and Yu. S. Pleva. 16(4), 374-5 (Apr. 1973); CPM-7309D1090
- Pleve, A. A.**—Excitation Energies of the Spontaneously Fissile Isomers of Pu^{240} , Cm^{241} , and Bk^{243} in Reactions with α Particles (E)—I. Vylkov, N. Vylkov, Yu. P. Gangrskii, M. Marinescu, A. A. Pleve, D. Poenaru and I. F. Kharisov. 16(3), 253-6 (Mar. 1973); CPM-7306D0349
- Podgoretskii, M. I.**—Correlations of Identical Particles Emitted by Highly Excited Nuclei (T)—G. I. Kopylov and M. I. Podgoretskii. 15(2), 219-23 (Aug. 1972); CPM-7210C1480
- Poenaru, D.**—Excitation Energies of the Spontaneously Fissile Isomers of Pu^{240} , Cm^{241} , and Bk^{243} in Reactions with α Particles (E)—I. Vylkov, N. Vylkov, Yu. P. Gangrskii, M. Marinescu, A. A. Pleve, D. Poenaru and I. F. Kharisov. 16(3), 253-6 (Mar. 1973); CPM-7306D0349
- Pogosyan, V. V.**—Influence of Spin and Quadrupole Interactions on the Properties of the State with $K^\pi = 1^+$ in Deformed Even-Even Nuclei (T)—V. M. Mikhailov and V. V. Pogosyan. 16(2), 162-7 (Feb. 1973); CPM-7304E0265
- Pokrovskii, V. N.**—Probability of (μ, ν) Process on La^{139} and Pb^{208} Nuclei (E)—G. G. Bunatyan, L. Vil'gel'mova, V. S. Evseev, L. N. Nikityuk, V. N. Pokrovskii, V. N. Rybakov and I. A. Yutlandov. 15(5), 526-7 (Nov. 1972); CPM-7302E0052
- Pokrovskii, Yu. E.**—Use of the K-Harmonics Method for Spin-Orbit Splitting Calculations of Light Nuclei (T)—A. I. Baz', A. M. Gorbato, V. F. Demin, Yu. E. Pokrovskii and Yu. K. Rogov. 16(2), 179-81 (Feb. 1973); CPM-7304E0282
- Pol, Yu. S.**—Analysis of Elastic Electron Scattering on Light Nuclei on the Basis of Symmetrized Fermi-Density Distribution (E/T)—Yu. N. Eldyshev, V. N. Lukyanov and Yu. S. Pol. 16(3), 282-6 (Mar. 1973); CPM-7306D0378
- Pomorski, L.**—Angular Distribution and Excitation Functions of the Reactions (N^{15} , N^{16}), (N^{14} , N^{16}), (N^{15} , N^{17}) (E)—A. G. Artyukh, V. V. Volkov, L. Pomorski and J. Tys. 16(5), 499-501 (May 1973); CPM-7309D1215
- Ponomarev, L. A.**—Model of Reggeized One-Pion Exchange and the $pp\text{-}pn\pi^+$ Reaction (T)—K. G. Boreskov, A. B. Kaidalov, V. I. Lisin, E. S. Nikolaevskii and L. A. Ponomarev. 15(2), 203-8 (Aug. 1972); CPM-7210C1464
- Analysis of the $np\text{-}pp\pi^+$ Reaction from the Point of View of a Reggeized OPE Model (T)—K. G. Boreskov, A. P. Gasparyan, A. B. Kaidalov, A. V. Nikitin, Yu. A. Troyan and L. A. Ponomarev. 15(3), 309-13 (Sep. 1972); CPM-7211A1938
- Ponomarev, L. N.**—Method of Perturbed Stationary States (T)—A. V. Matveenko and L. N. Ponomarev. 16(3), 347-8 (Mar. 1973); CPM-7306D0443
- Popeko, A. G.**—Compound Nucleus Production by Accelerated Xenon Ions (E)—G. N. Flerov, S. A. Karamyan, G. S. Popeko, A. G. Popeko and I. A. Shelaev. 15(6), 618-9 (Dec. 1972); CPM-7302E0144
- Popeko, G. S.**—Compound Nucleus Production by Accelerated Xenon Ions (E)—G. N. Flerov, S. A. Karamyan, G. S. Popeko, A. G. Popeko and I. A. Shelaev. 15(6), 618-9 (Dec. 1972); CPM-7302E0144
- Poplavskii, I. V.**—Inverse Problem in Complex λ Plane in the Presence of Coulomb Interaction with Allowance for Absorption (T)—V. V. Malyarov and I. V. Poplavskii. 16(4), 483-5 (Apr. 1973); CPM-7309D1199
- Popov, A. B.**—Neutron Resonances of Sm Isotopes (E)—E. N. Karzhavina and A. B. Popov. 15(3), 225-7 (Sep. 1972); CPM-7211A1854
- Popov, A. I.**— Mn^{54} Levels (E)—V. M. Mishchenko, A. I. Popov and V. E. Storizhko. 15(4), 343-6 (Oct. 1972); CPM-7212D1888
- Popov, S. I.**—Construction of Physical Bases for the Groups O(5) and SU(3) with Automatic Performance of Symbolic Transformations (T)—V. N. Vinogradov, E. V. Gai, S. I. Popov, N. S. Rabotnov and I. B. Shchenkov. 16(6), 647-52 (Jun. 1973); CPM-7310E1495
- Popov, V. S.**—Method for the Calculation of the Nuclear Critical Charge (T)—V. S. Popov. 15(5), 595-600 (Nov. 1972); CPM-7302E0121
- Pair Production in an Electromagnetic Field (Case of Arbitrary Spin) (T)—M. S. Marinov and V. S. Popov. 15(6), 702-9 (Dec. 1972); CPM-7302E0228
- Remarks on the Analytic Properties of Wave Functions at Low Energies (T)—A. B. Migdal, A. M. Perelomov and V. S. Popov. 16(1), 120-1(L) (Jan. 1973); CPM-7304E0224
- e^+e^- Pair Production in an Alternating Electric Field (T)—V. S. Popov and M. S. Marinov. 16(4), 449-56 (Apr. 1973); CPM-7309D1165
- Potapov, V. S.**—The Need for Taking into Account the Second-Order Terms of the Distorted Wave Method in the Three-Particle Scattering Problem (T)—V. S. Potapov. 16(1), 42-4 (Jan. 1973); CPM-7304E0146
- Prokhorets, I. M.**—Photodisintegration of He^4 into Two Deuterons (E)—Yu. M. Arkatov, P. I. Vatsset, V. I. Voloshchuk, I. M. Prokhorets, A. F. Khodyachikh and V. I. Chmil. 16(1), 6-8 (Jan. 1973); CPM-7304E0110
- Prokhorov, L. V.**—Equations for Effective Lagrangians (T)—L. V. Prokhorov. 16(4), 473-7 (Apr. 1973); CPM-7309D1189
- Prokoshkin, Yu. D.**—Total Cross Sections of the π^+p and π^+d Interactions in the Momentum Region 15-60 GeV/c and the Glauber Correction (E)—Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. I. Petrukhin, Yu. D. Prokoshkin and D. A. Stoyanova. 15(5), 530-3 (Nov. 1972); CPM-7302E0056
- Measurement of the Mean Life of the π^+ Meson by an Oscillographic Method (E)—A. F. Dunaitsev, Yu. D. Prokoshkin, E. A. Razuvaev, V. A. Sergeev and Yu. N. Simonov. 16(3), 292-7 (Mar. 1973); CPM-7306D0388
- Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674-7 (Jun. 1973); CPM-7310E1522
- Pustovalov, V. V.**—Matrix Elements for a Three Nucleon System in K-Harmonics Method (T)—V. V. Pustovalov. 15(4), 399-403 (Oct. 1972); CPM-7212D1944
- Potential Harmonics in the Three-Body Problem (T)—V. V. Pustovalov. 16(2), 176-8 (Feb. 1973); CPM-7304E0279
- Pyatov, N. I.**—Rotational Invariance, Moments of Inertia, and 1^+ States in Deformed Nuclei (T)—N. I. Pyatov and M. I. Chernen. 16(5), 514-8 (May 1973); CPM-7309D1230
- Excitation of 0^+ States in Two-Nucleon Transfer Reactions (E)—S. K. Abdulvagabova, S. P. Ivanova and N. I. Pyatov. 16(6), 665-9 (Jun. 1973); CPM-7310E1513

R

- Rabinovich, A. D.**—Fission of U^{235} by Thermal Neutrons (E)—V. P. Zakharova, D. K. Ryazanov, B. G. Basova, A. D. Rabinovich and V. A. Kostylev. 16(4), 364-71 (Apr. 1973); CPM-7309D1080
- Rabotnov, N. S.**—High-Spin Levels of Even-Even Nuclei in a Phenomenological Collective Model (T)—A. P. Budnik, N. S. Rabotnov and A. A. Seregin. 15(3), 262-3 (Sep. 1972); CPM-7211A1891
- E2 Transition Probabilities in the Asymmetric Rigid Rotor Model (T)—E. V. Gai and N. S. Rabotnov. 15(4), 396-8 (Oct. 1972); CPM-7212D1941
- E2 Transitions and Quadrupole Moments of States with High Spin in the Collective Model (T)—A. P. Budnik, N. S. Rabotnov and A. A. Seregin. 16(1), 17-8 (Jan. 1973); CPM-7304E0121
- Probabilities of E2 Transitions and Mean Values of Quadrupole Moments of High Spin States in the Asymmetric Top Model (T)—E. V. Gai and N. S. Rabotnov. 16(2), 159-61 (Feb. 1973); CPM-7304E0262
- Construction of Physical Bases for the Groups O(5) and SU(3) with Automatic Performance of Symbolic Transformations (T)—V. N. Vinogradov, E. V. Gai, S. I. Popov, N. S. Rabotnov and I. B. Shchenkov. 16(6), 647-52 (Jun. 1973); CPM-7310E1495

- Raichev, P. P.**—Realization of the Physical Basis for $Su(3)$ and the Probabilities of E1 Transitions in the $Su(3)$ Formalism (T)—G. N. Afanas'ev, S. A. Abramov and P. P. Raichev. 16(1), 27–30 (Jan. 1973); CPM-7304E0131
- Parametrization of B(E2) Transitions in Deformed Even–Even Nuclei Within the Framework of the $SU(3)$ Scheme (T/E)—P. P. Raichev. 16(6), 643–6 (Jun. 1973); CPM-7310E1491
- Rakov, Yu. A.**—Photoproduction of π^0 Mesons from Nucleons in the Complex Regge Pole Model (T)—N. P. Zotov, Yu. A. Rakov and V. A. Tsarev. 15(3), 307–8 (Sep. 1972); CPM-7211A1936
- Fixed Pole in the Virtual Compton–Effect Amplitude (T)—Yu. A. Rakov and V. A. Tsarev. 15(5), 574–5 (Nov. 1972); CPM-7302E0100
- Ranft, G.**—Phenomenological Study of Inclusive Single-Particle Spectra in the Triple Regge Limit (T)—G. Ranft and J. Ranft. 15(3), 314–6 (Sep. 1972); CPM-7211A1943
- Ranft, J.**—Phenomenological Study of Inclusive Single-Particle Spectra in the Triple Regge Limit (T)—G. Ranft and J. Ranft. 15(3), 314–6 (Sep. 1972); CPM-7211A1943
- Ranyuk, Yu. N.**—Photofission and Photofragmentation of Tantalum (E)—V. I. Kasilov, A. V. Mitrofanova, Yu. N. Ranyuk and P. V. Sorokin. 15(3), 228–31 (Sep. 1972); CPM-7211A1857
- Anisotropy in the Angular Distribution of Fragments from Photofission at High Energies (E)—N. A. Demekhina, V. I. Kasilov, A. V. Mitrofanova, Yu. N. Ranyuk and P. V. Sorokin. 16(5), 502–4 (May 1973); CPM-7309D1218
- Rapoport, L. P.**—Coulomb Green's Functions in the x -Representation and Relativistic Polarizability of a Hydrogen-Like Atom (T)—B. A. Zon, N. L. Manakov and L. P. Rapoport. 15(3), 282–6 (Sep. 1972); CPM-7211A1911
- Razuvaev, E. A.**—Measurement of the Mean Life of the π^+ Meson by an Oscillographic Method (E)—A. F. Dunaitsev, Yu. D. Prokoshkin, E. A. Razuvaev, V. A. Sergeev and Yu. N. Simonov. 16(3), 292–7 (Mar. 1973); CPM-7306D0388
- Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674–7 (Jun. 1973); CPM-7310E1522
- Rekalo, A. P.**—General Form of Cross Sections and Polarization Effects for Electromagnetic and Weak Processes (T)—A. P. Rekalo. 15(3), 300–3 (Sep. 1972); CPM-7211A1929
- Neutrino Electromagnetic and Weak Interactions and the Process $l + l^+ \rightarrow \nu + \bar{\nu} + \gamma$ (T)—A. P. Rekalo. 16(3), 309–10 (Mar. 1973); CPM-7306D0405
- Reshetnikov, G. P.**—Energy Dependence of Elastic Backward Scattering of Protons by Deuterons in the 360–670 MeV Range (E)—V. I. Komarov, G. E. Kosarev, G. P. Reshetnikov and O. V. Savchenko. 16(2), 129–33 (Feb. 1973); CPM-7304E0232
- Rissukhin, V. K.**—P–Odd Interaction in the $Cd^{113}(n,\gamma)Cd^{114}$ Reaction (E)—Yu. G. Abov, M. M. Danilov, O. N. Ermakov, I. L. Karpikhin, V. K. Rissukhin and A. M. Skorniyakov. 16(6), 670–3 (Jun. 1973); CPM-7310E1518
- Roganov, V. S.**—Angular Distribution of Low Energy Neutrons from Nuclear μ^- Capture in Sulfur and Calcium (E)—I. Wojtkowska, V. S. Evseev, T. Kozlowski, A. A. Nikolina and V. S. Roganov. 15(5), 523–5 (Nov. 1972); CPM-7302E0049
- Neutron Energy Spectrum from Absorption of Negative Muons by O, S, Ca, and Pb Nuclei (E)—I. Wojtkowska, V. S. Evseev, T. Kozlowski and V. S. Roganov. 15(6), 639–44 (Dec. 1972); CPM-7302E0165
- Dependence of the Depolarization of Negative Muons on the Molecular Weight and Temperature in Organic Compounds (E)—A. A. Dzhuzaev, V. S. Evseev, Yu. V. Obukhov and V. S. Roganov. 16(1), 60–3 (Jan. 1973); CPM-7304E0164
- Depolarization of Negative Muons in Monomeric and Polymeric Organic Compounds (T)—A. A. Dzhuzaev, V. S. Evseev, Yu. V. Obukhov, V. S. Roganov and N. I. Kholodov. 16(1), 64–6 (Jan. 1973); CPM-7304E0168
- Rogov, Yu. K.**—Use of the K-Harmonics Method for Spin-Orbit Splitting Calculations of Light Nuclei (T)—A. I. Baz', A. M. Gorbатов, V. F. Demin, Yu. E. Pokrovskii and Yu. K. Rogov. 16(2), 179–81 (Feb. 1973); CPM-7304E0282
- Roinishvili, V.**—Missing–Mass Spectra Observed in the Reaction $\pi + p \rightarrow p + X^-$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Eñch, M. N. Kienzle–Focacci, V. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, K. S. Shishkin, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550–3 (May 1973); CPM-7309D1266
- Romanovskii, E. A.**—Proton Elastic Scattering by Ca Nuclei in the Energy Region 5.0–6.4 MeV (E)—E. A. Romanovskii, E. I. Sirotin, T. I. Spasskaya, K. S. Shishkin and V. D. Aleshin. 15(4), 365–6 (Oct. 1972); CPM-7212D1910
- Romantseva, A. S.**—The Reaction $\pi p \rightarrow \pi \pi^+ n$ at $p_{\pi} = 4.45$ BeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, M. M. Sulkovskaya and A. F. Sustavov. 15(2), 166–8 (Aug. 1972); CPM-7210C1427
- $\pi p \rightarrow \pi \pi^0 p$ Reaction at $p_{\pi} = 4.45$ GeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, V. A. Suetin, M. M. Sulkovskaya and A. F. Sustavov. 16(3), 298–9 (Mar. 1973); CPM-7306D0394
- Rozenova, A. M.**—Rescattering Effects in the $pd \rightarrow ppn$ Reaction (T)—B. M. Golovin, G. I. Lykasov, A. M. Rozenova and A. V. Tarasov. 16(5), 602–4 (May 1973); CPM-7309D1318
- Rozental', I. L.**—Scaling and Hydrodynamic Theory of Multiple Processes (E/T)—E. I. Daibog, Yu. P. Nikitin and I. L. Rozental'. 16(6), 724–6 (Jun. 1973); CPM-7310E1572
- Rozhnov, G. V.**—Erratum: Angular and Momentum Distributions of μ^- Mesons in the Reaction $\nu + Z \rightarrow \mu^- + W^+ + Z$ [14, 235 (2)] (T)—E. D. Zhizhin, Yu. P. Nikitin, G. V. Rozhnov and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Muon Production in the Process $\nu_{\mu} + N \rightarrow \mu^- + W^+ + N'$, Taking into Account the Neutrino Energy Spectrum (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(3), 304–8 (Mar. 1973); CPM-7306D0400
- The Process $\nu_{\mu} + N \rightarrow \mu^- + W^+ + N'$ and the Possibility of Detecting the W Boson from the Kinematic Characteristics of the Lepton from the Decay $W^+ \rightarrow l^+ + \nu_l$ (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(6), 686–9 (Jun. 1973); CPM-7310E1534
- Rudak, E. A.**—Doorway States of "Phonon + Particle" Type in (n, γ) Reactions on $N=28$ and $N=82$ Nuclei (E)—V. A. Knat'ko and E. A. Rudak. 15(6), 626–8 (Dec. 1972); CPM-7302E0152
- Rumyantsev, B. A.**—The Hydrodynamic Limit for Finite Fermi Systems (T)—B. A. Rumyantsev. 15(1), 28–30 (Jul. 1972); CPM-7209C0980
- Collective 0^+ and 2^+ States in Deformed Nuclei (T)—B. A. Rumyantsev and V. B. Telitsyn. 15(4), 387–91 (Oct. 1972); CPM-7212D1932
- Rusakov, S. V.**—Ionization Loss of High-Energy Electrons (E)—A. S. Belousov, E. I. Malinovskii, S. V. Rusakov and P. N. Shareiko. 16(2), 189–90 (Feb. 1973); CPM-7304E0292
- Ruskina, G. Ya.**— Po^{210} Fission in $Pb^{206}(\alpha, f)$ Reaction (E)—M. G. Itkis, K. G. Kuvatov, V. N. Okolovich, G. Ya. Ruskina, G. N. Smirenkin and A. S. Tishin. 16(2), 144–50 (Feb. 1973); CPM-7304E0247
- Rutkowski, E.**—Optical Radiation Excited by Nonrelativistic Charged Particles at Metal Surfaces (E)—A. P. Kobzev, S. Michalak, E. Rutkowski and I. M. Frank. 15(2), 184–8 (Aug. 1972); CPM-7210C1445
- Ryazanov, D. K.**—Fission of U^{235} by Thermal Neutrons (E)—V. P. Zakharova, D. K. Ryazanov, B. G. Basova, A. D. Rabinovich and V. A. Kostylev. 16(4), 364–71 (Apr. 1973); CPM-7309D1080
- Ryazhskaya, O. G.**—Investigation of Underground Nuclear Interactions of Cosmic Ray Muons (E)—I. B. Bezrukov, V. I. Beresnev, G. T. Zatepin, M. I. Nyunin, O. G. Ryazhskaya and L. N. Stepanets. 15(2), 176–83 (Aug. 1972); CPM-7210C1437
- Rybakov, V. N.**—Probability of (μ^-, ν) Process on La^{139} and Pb^{208} Nuclei (E)—G. G. Bunatyan, L. Vil'gel'mova, V. S. Evseev, L. N. Nikityuk, V. N. Pokrovskii, V. N. Rybakov and I. A. Yutlandov. 15(5), 526–7 (Nov. 1972); CPM-7302E0052

S

- Sabo, V. Ya.**—Baryons and Pseudoscalar Mesons in Broken Nonlinear Chiral $SU(3) \times SU(3)$ Dynamics (T)—M. I. Gaisak and V. Ya. Sabo. 16(1), 109–11 (Jan. 1973); CPM-7304E0213
- Safro, M. G.**—Production of a Spin- $\frac{1}{2}$ Resonance in the Dual Resonance Model (T)—L. V. Laperashvili and M. G. Safro. 15(5), 567–70 (Nov. 1972); CPM-7302E0093

- Saidkhanov, N. Sh.**—Coherent Diffraction Production of Pions by Photons in Photoemission Nuclei (E)—Sh. Abdurhamilov, S. A. Azimov, N. Sh. Saidkhanov and V. M. Chudakov. 15(2), 169–75 (Aug. 1972); CPM-7210C1430
- Salganik, Yu. A.**—Neutron Channel in μ^- Capture and Short-Range Nucleon-Nucleon Correlations. The Reaction $\mu^- + \text{He}^3 \rightarrow n + \nu$ (E)—Yu. A. Salganik and R. A. Éramzhyan. 15(3), 287–9 (Sep. 1972); CPM-7211A1916
- Salomatin, Yu. I.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14–42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534–7 (Nov. 1972); CPM-7302E0060
- Sandach, A.**—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650–3 (Dec. 1972); CPM-7302E0176
- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyung Bien and M. G. Shafranov. 16(1), 50–6 (Jan. 1973); CPM-7304E0154
- Sandor, L.**—Investigation of the Reactions $\pi^- p \rightarrow n\pi^+ \pi^- + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, L. Sandor and V. G. Yatsyuk. 15(6), 645–9 (Dec. 1972); CPM-7302E0171
- San'ko, L. A.**—Analysis of the Angular and Energy Characteristics of Secondary Particles Produced in Proton-Proton Interactions at 10 BeV/c (E)—Zh. S. Takibaev, M. G. Antonova, É. G. Boos, D. I. Ermilova, L. A. San'ko, T. Temiraliyev and A. V. Kholmetskaya. 15(1), 38–43 (Jul. 1972); CPM-7209C0990
- Study of Four Prong pp Interaction at a Momentum 19.1 GeV/c (E)—Zh. S. Takibaev, É. G. Boos, L. A. San'ko, T. I. Mukhordova, A. M. Mosienko, K. G. Zaitsev and K. V. Sharapov. 16(5), 537–41 (May 1973); CPM-7309D1253
- Sard, R. D.**—Missing-Mass Spectra Observed in the Reaction $\pi^- + p \rightarrow p + X^-$ at 25 and 40 BeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Damgaard, F. A. Éch, M. N. Kienzie-Focacci, W. Kienzie, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550–3 (May 1973); CPM-7309D1266
- Savchenko, O. V.**—Energy Dependence of Elastic Backward Scattering of Protons by Deuterons in the 360–670 MeV Range (E)—V. I. Komarov, G. E. Kosarev, G. P. Reshetnikov and O. V. Savchenko. 16(2), 129–33 (Feb. 1973); CPM-7304E0232
- Savel'ev, A. E.**—The Hauser-Feshbach Method for Many Particle-Nuclear Reactions (T)—A. E. Savel'ev. 15(2), 154–6 (Aug. 1972); CPM-7210C1415
- Mechanism of (n,p) and (n, α) Reactions on Light and Medium Nuclei (E/T)—A. E. Savel'ev, I. K. Averyanov and B. M. Dzyuba. 15(4), 416–8 (Oct. 1972); CPM-7212D1961
- Nucleon Pairing and Dependence of the Number of Prompt Neutrons on the Fragment Mass (T)—A. E. Savel'ev, S. V. Zhikhareva and M. A. Savel'eva. 16(1), 11–3 (Jan. 1973); CPM-7304E0115
- Energy Dependence of $\bar{\nu}$ in the Fission of U^{235} by Fast Neutrons (E)—M. V. Savin, Yu. A. Khokhlov, A. E. Savel'ev and I. N. Paramonova. 16(6), 638–40 (Jun. 1973); CPM-7310E1486
- Savel'eva, M. A.**—Nucleon Pairing and Dependence of the Number of Prompt Neutrons on the Fragment Mass (T)—A. E. Savel'ev, S. V. Zhikhareva and M. A. Savel'eva. 16(1), 11–3 (Jan. 1973); CPM-7304E0115
- Savin, I. A.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14–42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534–7 (Nov. 1972); CPM-7302E0060
- Savin, M. V.**—Energy Dependence of $\bar{\nu}$ in the Fission of U^{235} by Fast Neutrons (E)—M. V. Savin, Yu. A. Khokhlov, A. E. Savel'ev and I. N. Paramonova. 16(6), 638–40 (Jun. 1973); CPM-7310E1486
- Savitskii, G. A.**—Determination of the Charge Distribution Parameters of Ni^{60} , Zn^{64} , and Zn^{66} by Elastic Electron Scattering (E)—A. S. Litvinenko, N. G. Shevchenko, N. G. Afanas'ev, A. Yu. Buki, G. A. Savitskii, V. M. Khvastunov, A. A. Khomich, I. I. Chkalov and V. P. Likhachev. 15(6), 611–3 (Dec. 1972); CPM-7302E0137
- Savrin, V. I.**—Connection of the Total Cross Section with the Diffraction Peak of Elastic Scattering (T)—V. I. Savrin, S. V. Semenov, N. E. Tyurin and O. A. Khrustalev. 16(2), 214–6 (Feb. 1973); CPM-7304E0317
- Sazonov, V. N.**—Possible Mass Anisotropy and Interaction of Ultra-High-Energy Particles with an Electromagnetic Field (T)—V. N. Sazonov. 15(5), 590–4 (Nov. 1972); CPM-7302E0116
- Selitskii, Yu. A.**—Search for Fission Isomers in the Radium Region (E)—I. M. Kuks, V. I. Matvienko, Yu. A. Nemilov, Yu. A. Selitskii and V. B. Funshtein. 16(2), 244(L) (Feb. 1973); CPM-7304E0347
- Semenov, S. V.**—Connection of the Total Cross Section with the Diffraction Peak of Elastic Scattering (T)—V. I. Savrin, S. V. Semenov, N. E. Tyurin and O. A. Khrustalev. 16(2), 214–6 (Feb. 1973); CPM-7304E0317
- Serbo, V. G.**—Applicability of the Weizsäcker-Williams Approximation to Two-Photon Particle Production (T)—V. M. Budnev, I. F. Ginzburg, G. V. Medelin and V. G. Serbo. 16(2), 201–3 (Feb. 1973); CPM-7304E0304
- Serebryakov, V. V.**—Dynamic Model for the 33 Phase Shift of πN Scattering (T)—A. N. Vall, Yu. H. Kafiev and V. V. Serebryakov. 16(1), 106–8 (Jan. 1973); CPM-7304E0210
- Serednyakov, S. I.**—Observation of Double e^+e^- Pair Production (E)—V. E. Balakin, A. D. Bukin, L. M. Kurdadze, A. P. Onuchin, E. V. Pakhtusova, S. I. Serednyakov, V. A. Sidorov and A. G. Khabakhpashev. 16(4), 407–9 (Apr. 1973); CPM-7309D1123
- Seregin, A. A.**—High-Spin Levels of Even-Even Nuclei in a Phenomenological Collective Model (T)—A. P. Budnik, N. S. Rabotnov and A. A. Seregin. 15(3), 262–3 (Sep. 1972); CPM-7211A1891
- E2 Transitions and Quadrupole Moments of States with High Spin in the Collective Model (T)—A. P. Budnik, N. S. Rabotnov and A. A. Seregin. 16(1), 17–8 (Jan. 1973); CPM-7304E0121
- Sergachev, A. I.**—Influence of Excitation Energy on the Mass and Kinetic Energy Distributions of U^{233} Fission Fragments (E)—A. I. Sergachev, N. P. D'yachenko, A. M. Kovalev and B. D. Kuz'minov. 16(3), 266–9 (Mar. 1973); CPM-7306D0362
- Sergeev, V. A.**—Measurement of the Mean Life of the π^+ Meson by an Oscillographic Method (E)—A. F. Dunaitsev, Yu. D. Prokoshkin, E. A. Razuvaev, V. A. Sergeev and Yu. N. Simonov. 16(3), 292–7 (Mar. 1973); CPM-7306D0388
- Severin, N. F.**—Electroproduction of Pions from Protons at Threshold for Momentum Transfers up to 10.4 F^2 (E/T)—Yu. I. Titov, N. F. Severin, N. G. Afanas'ev, R. V. Akhmerov, S. A. Byvalin, E. V. Stepula and E. M. Smelov. 15(3), 273–5 (Sep. 1972); CPM-7211A1902
- Shabalin, E. P.**—Erratum: "Direct Production of Lepton Pairs by a Neutrino Beam in the Electromagnetic Field of a Nucleus [3, 497 (4)] (T)—M. S. Marinov, Yu. P. Nikitin, Yu. P. Orevkov and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Erratum: Neutral Currents and the Limit of Validity of the Theory of Weak Interactions [6, 603 (4)] (T)—B. L. Ioffe and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Erratum: Angular and Momentum Distributions of μ^- Mesons in the Reaction $\nu + Z \rightarrow \mu^- + W^+ + Z$ [14, 235 (2)] (T)—E. D. Zhizhin, Yu. P. Nikitin, G. V. Rozhnov and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070

- Erratum: Angular and Momentum Distribution of μ^+ Mesons Resulting from the Decay of the W^+ Boson in the Reaction $\nu + Z \rightarrow \mu^- + Z + W^+$ [14, 236 (2)] (T)—A. V. Berkov, E. D. Zhizhin, Yu. P. Nikitin and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- P-odd Nuclear Forces and CP Violation in the Renormalizable Theory of Weak Interactions (T)—E. P. Shabalin. 15(4), 457–60 (Oct. 1972); CPM-7212D2002
- The Role of Corrections to the Weak Interaction in the $K \rightarrow l^+ l^-$ and $K \rightarrow \pi l^+ l^-$ Decays (T)—E. P. Shabalin. 16(2), 204–8 (Feb. 1973); CPM-7304E0307
- Shabel'skii, Yu. M.**—Violation of Scale Invariance in Hadron Electroproduction Owing to the Cut Contribution (T)—Yu. M. Shabel'skii. 16(1), 103–5 (Jan. 1973); CPM-7304E0207
- Shabratova, G. S.**—Interactions of 2.43-GeV/c Deuterons with Photographic Emulsion Nuclei (E)—E. Silesh, K. D. Tolstov, J. Tuček and G. S. Shabratova. 16(1), 57–9 (Jan. 1973); CPM-7304E0161
- Shadchin, S. A.**—Short-Range Nucleon–Nucleon Repulsion and Low-Energy Three-Nucleon Parameters (T)—V. F. Kharchenko, S. A. Shadchin and S. A. Storozhenko. 15(5), 493–6 (Nov. 1972); CPM-7302E0019
- Shafranov, M. G.**—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650–3 (Dec. 1972); CPM-7302E0176
- Investigation of Elastic Proton–Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong Bien and M. G. Shafranov. 16(1), 50–6 (Jan. 1973); CPM-7304E0154
- Shakhnazaryan, Yu. G.**—Electromagnetic Mechanism of Inelastic Hadron Collision at High Energies (T)—S. G. Matinyan, N. L. Ter-Isaakyan, V. A. Khoze and Yu. G. Shakhnazaryan. 16(4), 440–4 (Apr. 1973); CPM-7309D1156
- Shakhova, Ts. I.**—Momentum Characteristics of Pion–Nucleon Interactions at 60 BeV (E)—Zh. S. Takibaev, I. Ya. Chasnikov, A. Kh. Vinitskii, V. G. Voinov, Ts. I. Shakhova, I. S. Strel'tsov and Z. V. Anzon. 16(3), 300–3 (Mar. 1973); CPM-7306D0396
- Shalabaev, D. A.**—Investigation of Angular Correlations in the Reactions $B^{10}(\alpha, d_1)^7C^{12}_{4,43}$, $B^{11}(\alpha, t_1)^7C^{12}_{4,43}$, and $C^{12}(\alpha, \alpha_1)^7C^{12}_{4,43}$ (E)—A. A. El-Kamhavi, G. S. Gurevich, N. V. Orlova, A. V. Spasskii, I. B. Teplov and D. A. Shalabaev. 15(3), 241–3 (Sep. 1972); CPM-7211A1870
- Shalatskii, S. V.**—Study of (γ, T) Reactions in Nuclei with Bremsstrahlung Energies up to 1200 MeV (E)—Yu. P. Antuf'ev, V. L. Agranovich, V. B. Ganenko, V. S. Kuz'menko, I. I. Mirosnichenko, P. V. Sorokin and S. V. Shalatskii. 15(4), 357–60 (Oct. 1972); CPM-7212D1902
- Shandor, L.**—Production of Pairs of Λ^0 Hyperons in Interactions of π^- Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzelepov, Zh. K. Karamyan, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44–6 (Jul. 1972); CPM-7209C0996
- Shapiro, I. S.**—Quantum Theory Without the Superposition Principle (T)—I. S. Shapiro. 16(6), 727–32 (Jun. 1973); CPM-7310E1575
- Sharapov, K. V.**—Study of Four Prong pp Interaction at a Momentum 19.1 GeV/c (E)—Zh. S. Takibaev, É. G. Boos, L. A. San'ko, T. I. Mukhordova, A. M. Mosienko, K. G. Zaitsev and K. V. Sharapov. 16(5), 537–41 (May 1973); CPM-7309D1253
- Shareiko, P. N.**—Ionization Loss of High-Energy Electrons (E)—A. S. Belousov, E. I. Malinovskii, S. V. Rusakov and P. N. Shareiko. 16(2), 189–90 (Feb. 1973); CPM-7304E0292
- Sharifov, K. N.**—Energy Balance in Fission by Heavy Ions (E)—S. A. Karamyan, Tak An Nguyen and K. N. Sharifov. 15(3), 244–8 (Sep. 1972); CPM-7211A1873
- Angular Distribution of Neutrons Produced by Irradiating Ge, Mo, Ag, and Pr Targets with Heavy Ions of C, O, Ne, and Ar (E)—A. S. Il'inov, S. A. Karamyan, Tak An Nguyen and K. N. Sharifov. 16(3), 260–2 (Mar. 1973); CPM-7306D0356
- Shchegolev, V. A.**—Some Peculiarities of Interaction of Ne^{20} and C^{12} Ions with Nuclei at 10–17 MeV/Nucleon (E)—V. M. Nikolaev and V. A. Shchegolev. 16(3), 263–5 (Mar. 1973); CPM-7306D0359
- Shchenkov, I. B.**—Construction of Physical Bases for the Groups $O(5)$ and $SU(3)$ with Automatic Performance of Symbolic Transformations (T)—V. N. Vinogradov, E. V. Gai, S. I. Popov, N. S. Rabotnov and I. B. Shchenkov. 16(6), 647–52 (Jun. 1973); CPM-7310E1495
- Shebanov, V. A.**—Study of the Reaction $\pi^+ p \rightarrow n + m\gamma$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163–5 (Aug. 1972); CPM-7210C1424
- Search for a Neutral Vector Meson in K_L Decays (E)—V. V. Barmin, G. V. Davidenko, V. S. Demidov, A. G. Dolgolenko, V. A. Matveev, A. G. Meshkovskii, G. S. Mirosidi, T. A. Chistyakova, I. V. Chuvalo and V. A. Shebanov. 15(6), 636–7 (Dec. 1972); CPM-7302E0162
- Measurement of the Branching Ratio $\Gamma(K_L \rightarrow 3\pi^0)/\Gamma(K_L \rightarrow \pi^+ \pi^- \pi^0)$ (E)—V. V. Barmin, V. G. Barylov, G. D. Davidenko, V. S. Demidov, A. G. Dolgolenko, N. K. Zombkovskaya, A. G. Meshkovskii, G. S. Mirosidi, T. A. Chistyakova and V. A. Shebanov. 15(6), 638 (Dec. 1972); CPM-7302E0164
- Shelae, I. A.**—Compound Nucleus Production by Accelerated Xenon Ions (E)—G. N. Flerov, S. A. Karamyan, G. S. Popeko, A. G. Popeko and I. A. Shelaev. 15(6), 618–9 (Dec. 1972); CPM-7302E0144
- Shelepin, L. A.**—Problems of Reduction for Compact Groups (T)—I. M. Lizin and L. A. Shelepin. 15(1), 108–12 (Jul. 1972); CPM-7209C1060
- Cooperative Characteristics of Many-Particle Systems (T)—T. M. Makhviladze and L. A. Shelepin. 15(3), 335–40 (Sep. 1972); CPM-7211A1964
- Coherent States of Rotating Bodies (T)—T. M. Makhviladze and L. A. Shelepin. 15(5), 601–2 (Nov. 1972); CPM-7302E0127
- Shevchenko, N. G.**—Determination of the Charge Distribution Parameters of ^{60}Co , ^{64}Zn , and ^{66}Zn by Elastic Electron Scattering (E)—A. S. Litvinenko, N. G. Shevchenko, N. G. Afanas'ev, A. Yu. Buki, G. A. Savitskii, V. M. Khvastunov, A. A. Khomich, I. I. Chkalov and V. P. Likhachev. 15(6), 611–3 (Dec. 1972); CPM-7302E0137
- Shevchenko, V. A.**—Differential Cross Sections and Angular Distributions of γ Rays from the $(n, n'\gamma)$ Reaction on Pr^{141} and Ho^{165} (E)—E. A. Andreev, S. P. Sit'ko and V. A. Shevchenko. 15(5), 479–81 (Nov. 1972); CPM-7302E0005
- Shifman, M. A.**—The $K_L^0 \rightarrow \mu^+ \mu^-$ Decay and a Possible Anomalous Muon–Hadron Interaction (T)—E. B. Bogomo'nyi, A. D. Dolgov, V. I. Zakharov, L. B. Okun', M. A. Shifman and M. Zh. Shmatikov. 16(1), 70–6 (Jan. 1973); CPM-7304E0174
- The $K_L^0 \rightarrow \mu^+ \mu^-$ Decay and the Anomalous $2\pi\gamma \rightarrow 2\mu$ Interaction (T)—M. A. Shifman and N. Zh. Shmatikov. 16(1), 77–9 (Jan. 1973); CPM-7304E0181
- Contribution of the $\pi^+ \pi^- \gamma$ Intermediate State to the Absorptive Part of the $K_L^0 \rightarrow \mu^+ \mu^-$ Decay Amplitude (T)—A. D. Dolgov, M. A. Shifman and M. Zh. Shmatikov. 16(1), 80–1 (Jan. 1973); CPM-7304E0184
- Shigaev, O. E.**—Mass Distribution of Products of Long-Range-Particle Fission (T)—V. G. Bogdanov, Z. I. Solov'eva, O. E. Shigaev and V. S. Bychenkov. 15(2), 119–20 (Aug. 1972); CPM-7210C1380
- Erratum: Mass Distribution of Products of Long-range-particle Fission [9, 427 (1962)] (T)—V. G. Bogdanov, Z. I. Solov'eva, O. E. Shigaev and V. S. Bychenkov. 15(4), 473–4 (Oct. 1972); CPM-7212D2018
- Shigin, V. A.**— CF^{229} Fission Cross Section in the Neutron Energy Range 0.16–1.6 MeV (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, V. N. Kosyakov, G. A. Otroshchenko, L. V. Chistyakov, V. A. Shigin and V. M. Shubko. 15(1), 20–1 (Jul. 1972); CPM-7209C0972
- Angular Distributions of Fragments in Neutron-Induced Fission of CF^{249} (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, G. A. Otroshchenko and V. A. Shigin. 16(4), 372–3 (Apr. 1973); CPM-7309D1088

- Cross Sections for Neutron-Induced Fission of T^{238} (E)—P. E. Vorotnikov, Z. S. Gladikh, A. V. Davydov, S. M. Dubrovina, G. A. Otroshchenko, E. S. Pal'shin, V. A. Shigin and V. M. Shubko. 16(5), 505-6 (May 1973); CPM-7309D1221
- Shishkin, K. S.—Proton Elastic Scattering by Ca Nuclei in the Energy Region 5.0-6.4 MeV (E)—E. A. Romanovskii, E. I. Sirotin, T. I. Spasskaya, K. S. Shishkin and V. D. Aleshin. 15(4), 365-6 (Oct. 1972); CPM-7212D1910
- Shitikova, K. F.—Nature of the Intermediate Structure of Dipole Analog Resonances (T)—F. A. Zhivopistsev and K. F. Shitikova. 16(1), 21-4 (Jan. 1973); CPM-7304E0125
- Shklyarevskii, G. M.—Determination of the Neutron-Neutron Scattering Length from the Reaction $\pi d \rightarrow 2n + \gamma$ (T)—G. M. Shklyarevskii. 16(6), 700-4 (Jun. 1973); CPM-7310E1548
- Shmatikov, M. Zh.—The $K^0_L \rightarrow \mu^+ \mu^-$ Decay and a Possible Anomalous Muon-Hadron Interaction (T)—E. B. Bogomol'nyi, A. D. Dolgov, V. I. Zakharov, L. B. Okun', M. A. Shifman and M. Zh. Shmatikov. 16(1), 70-6 (Jan. 1973); CPM-7304E0174
- Contribution of the $\pi\pi\gamma$ Intermediate State to the Absorptive Part of the $K^0_L \rightarrow \mu\mu$ Decay Amplitude (T)—A. D. Dolgov, M. A. Shifman and M. Zh. Shmatikov. 16(1), 80-1 (Jan. 1973); CPM-7304E0184
- Shmatikov, N. Zh.—The $K^0_L \rightarrow \mu\mu$ Decay and the Anomalous $2\pi\gamma \rightarrow 2\mu$ Interaction (T)—M. A. Shifman and N. Zh. Shmatikov. 16(1), 77-9 (Jan. 1973); CPM-7304E0181
- Shpakov, V. I.—Prompt Neutrons and Kinetic Energy of Fragments from Spontaneous Fission of Cm^{244} (E)—I. D. Alkhasov, S. S. Kovalenko, O. I. Kostochkin, L. Z. Malkin, K. A. Petzhak and V. I. Shpakov. 15(1), 12-6 (Jul. 1972); CPM-7209C0964
- Shubko, V. M.—Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of Cf^{249} (E)—K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kcsyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentshev and V. N. Okolovich. 15(1), 17-9 (Jul. 1972); CPM-7209C0969
- Cf^{229} Fission Cross Section in the Neutron Energy Range 0.16-1.6 MeV (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, V. N. Kosyakov, G. A. Otroshchenko, L. V. Chistyakov, V. A. Shigin and V. M. Shubko. 15(1), 20-1 (Jul. 1972); CPM-7209C0972
- Cross Sections for Neutron-Induced Fission of T^{238} (E)—P. E. Vorotnikov, Z. S. Gladikh, A. V. Davydov, S. M. Dubrovina, G. A. Otroshchenko, E. S. Pal'shin, V. A. Shigin and V. M. Shubko. 16(5), 505-6 (May 1973); CPM-7309D1221
- Shuryak, E. V.—Multiparticle Production in High Energy Collisions (T)—E. V. Shuryak. 16(2), 220-5 (Feb. 1973); CPM-7304E0323
- Shuvalov, R. S.—Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, A. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674-7 (Jun. 1973); CPM-7310E1522
- Shvartsman, Sh. M.—Production of C-Even Resonances in Colliding ee Beams. Allowance for the Geometry of the Experiment in Two-Particle Decays (T)—A. K. Slivkov and Sh. M. Shvartsman. 16(4), 445-8 (Apr. 1973); CPM-7309D1161
- Shvedchikov, A. V.—Polarization of 1000-MeV Protons Scattered by Be, C, Al, and Pb Nuclei (E)—V. G. Vovchenko, A. A. Zhdanov, V. M. Zheleznyakov, O. Ya. Fedorov and A. V. Shvedchikov. 16(6), 628-30 (Jun. 1973); CPM-7310E1476
- Shvetsov, I. K.—Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of Cf^{249} (E)—K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kosyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentshev and V. N. Okolovich. 15(1), 17-9 (Jul. 1972); CPM-7209C0969
- Sidorov, V. A.—Observation of Double e^+e^- Pair Production (E)—V. E. Balakin, A. D. Bukin, L. M. Kurdadze, A. P. Onuchin, E. V. Pakhtusova, S. I. Serebnyakov, V. A. Sidorov and A. G. Khabakhpashev. 16(4), 407-9 (Apr. 1973); CPM-7309D1123
- Sidorov, V. M.—Formation of B^0 in Capture of Stopped π^- Mesons by Nitrogen Nuclei (E)—N. M. Agababyan, Yu. A. Batusov, S. A. Bunyatov, G. P. Gulkanyan, V. M. Sidorov and V. A. Yarka. 15(1), 10-1 (Jul. 1972); CPM-7209C0962
- Silesh, E.—Interactions of 2.43-GeV/c Deuterons with Photographic Emulsion Nuclei (E)—E. Silesh, K. D. Tolstov, J. Tuček and G. S. Shabrato. 16(1), 57-9 (Jan. 1973); CPM-7304E0161
- Sil'vestrov, L. V.—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshv, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Simonov, V. E.—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshv, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Simonov, Yu. N.—Measurement of the Mean Life of the π^+ Meson by an Oscillographic Method (E)—A. F. Dunaitsev, Yu. D. Prokoshkin, E. A. Razuvaev, V. A. Sergeev and Yu. N. Simonov. 16(3), 292-7 (Mar. 1973); CPM-7306D0388
- Sirotin, E. I.—Proton Elastic Scattering by Ca Nuclei in the Energy Region 5.0-6.4 MeV (E)—E. A. Romanovskii, E. I. Sirotin, T. I. Spasskaya, K. S. Shishkin and V. D. Aleshin. 15(4), 365-6 (Oct. 1972); CPM-7212D1910
- Sirunyan, A. M.—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412-6 (Apr. 1973); CPM-7309D1128
- Sitenko, A. G.—Scattering of High-Energy Electrons by H^3 and He^3 Nuclei (T)—A. G. Sitenko, I. V. Kozlovskii and V. K. Tartakovskii. 15(4), 406-9 (Oct. 1972); CPM-7212D1951
- Sit'ko, S. P.—Differential Cross Sections and Angular Distributions of γ Rays from the $(n,n'\gamma)$ Reaction on Pr^{141} and Ho^{165} (E)—E. A. Andreev, S. P. Sit'ko and V. A. Shevchenko. 15(5), 479-81 (Nov. 1972); CPM-7302E0005
- Skachkov, S. V.—Study of the Reaction $\pi^+ + p \rightarrow n + m\gamma$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163-5 (Aug. 1972); CPM-7210C1424
- Skakun, N. A.—Observation of Shadows in the Angular Distributions of Fragments from Photofission of Tantalum, and Evaluation of the Fission Lifetime (E)—N. A. Skakun and N. P. Dikii. 15(3), 341-2(L) (Sep. 1972); CPM-7211A1970
- Skobelev, N. K.—Delayed Fission of Some Neutron-Deficient Nuclei (T)—N. K. Skobelev. 15(3), 249-50 (Sep. 1972); CPM-7211A1878
- Skobelev, V. V.—Modification of the Coulomb Law in a Uniform Static Magnetic Field (T)—Yu. M. Loskutov and V. V. Skobelev. 15(4), 433-4 (Oct. 1972); CPM-7212D1978
- Skorniyakov, A. M.—P-Odd Interaction in the $Cd^{113}(n,\gamma)Cd^{114}$ Reaction (E)—Yu. G. Abov, M. M. Danilov, O. N. Ermakov, I. L. Karpikhin, V. K. Rissukhin and A. M. Skorniyakov. 16(6), 670-3 (Jun. 1973); CPM-7310E1518
- Skorobogatov, P. V.—Nonadiabatic Theory of Rotational-Vibrational Excitations in Atomic Nuclei (T)—P. V. Skorobogatov. 15(2), 124-7 (Aug. 1972); CPM-7210C1385
- Skorodumov, B. G.—Analysis of the Proton Spectrum from the $D(n,p)2n$ Reaction (E)—B. G. Skorodumov, M. P. Gol'dberg and Yu. N. Talanin. 15(3), 234-8 (Sep. 1972); CPM-7211A1863
- Slabospitskii, R. P.—Study of C^{13} Excited States by Elastic Scattering of Polarized Protons by S^{32} (E)—I. D. Lopatko, V. I. Borovlev, G. B. Andreev and R. P. Slabospitskii. 16(2), 127-8 (Feb. 1973); CPM-7304E0230
- Slivkov, A. K.—Production of C-Even Resonances in Colliding ee Beams. Allowance for the Geometry of the Experiment in Two-Particle Decays (T)—A. K. Slivkov and Sh. M. Shvartsman. 16(4), 445-8 (Apr. 1973); CPM-7309D1161

- Slowinski, B.—Cascade Curves and Fluctuations of Average Characteristics of the Development of Showers Produced by 1600-MeV γ Quanta in Liquid Xenon (E)—B. Slowinski, Z. Strugalski and W. Hubert. 16(4), 410-1 (Apr. 1973); CPM-7309D1126
- Smelov, E. M.—Electroproduction of Pions from Protons at Threshold for Momentum Transfers up to $10.4 F^{-2}$ (E/T)—Yu. I. Titov, N. F. Severin, N. G. Afanas'ev, R. V. Akhmerov, S. A. Byvalin, E. V. Stepula and E. M. Smelov. 15(3), 273-5 (Sep. 1972); CPM-7211A1902
- Smirenkin, G. N.—Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of Cf^{249} (E)—K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kosyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentshev and V. N. Okolovich. 15(1), 17-9 (Jul. 1972); CPM-7209C0969
- Structure of the One-Particle Spectrum and Energy Dependence of Γ/Γ_n (T)—A. V. Ignatyuk, G. N. Smirenkin and A. S. Tishin. 15(6), 622-5 (Dec. 1972); CPM-7302E0148
- Po^{210} Fission in $Pb^{206}(\alpha, f)$ Reaction (E)—M. G. Itkis, K. G. Kuvatov, V. N. Okolovich, G. Ya. Ruskina, G. N. Smirenkin and A. S. Tishin. 16(2), 144-50 (Feb. 1973); CPM-7304E0247
- Study of Phase Transition in the Density of the Excited States of Even-Even Pb Nuclei in the (α, f) Reaction (E)—V. N. Okolovich, M. G. Itkis, K. G. Kuvatov and G. N. Smirenkin. 16(6), 631-3 (Jun. 1973); CPM-7310E1479
- Smirin, L. N.—Lifetime of the 2.734-MeV Level of Sr^{88} (E)—D. K. Kaipov, Yu. G. Kosyak, L. N. Smirin and Yu. K. Subnyi. 15(6), 603-4 (Dec. 1972); CPM-7302E0129
- Smirnov, G. I.—Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi\pi^+\pi^-\pi^+e^+e^-$ at $E_{\text{kin}}=275$ MeV (E)—S. F. Berezhnev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, A. V. Kuptsov, G. G. Mkrtchyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. 16(1), 99-102 (Jan. 1973); CPM-7304E0203
- Smirnov, Yu. G.—Internal Bremsstrahlung Accompanying a Unique β Transition of Cs^{137} (E)—I. S. Batkin and Yu. G. Smirnov. 16(4), 405-6 (Apr. 1973); CPM-7309D1121
- Smolin, D. A.—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Smorodinskaya, N. Ya.—Polarization Effects in $(p, 2p)$ Reaction (T)—V. M. Kolybasov and N. Ya. Smorodinskaya. 15(3), 269-72 (Sep. 1972); CPM-7211A1898
- Smotritskii, L. M.—Nonconservation of P-Parity in γ Decay of K^{41} (E)—B. M. Lobashov, V. A. Nazarenko, N. A. Bozovoi, L. M. Smotritskii, G. I. Kharkevich and V. A. Knyaz'kov. 15(6), 632-5 (Dec. 1972); CPM-7302E0158
- Sokolov, A. A.—Muon Production in the Process $\nu_\mu + N \rightarrow \mu^- + W^+ + N'$, Taking into Account the Neutrino Energy Spectrum (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(3), 304-8 (Mar. 1973); CPM-7306D0400
- The Process $\nu_\mu + N \rightarrow \mu^- + W^+ + N'$ and the Possibility of Detecting the W Boson from the Kinematic Characteristics of the Lepton from the Decay $W^+ \rightarrow l^+ + \nu_l$ (T)—V. V. Makeev, P. L. Nevskii, Yu. P. Nikitin, G. V. Rozhnov and A. A. Sokolov. 16(6), 686-9 (Jun. 1973); CPM-7310E1534
- Sokolov, V. V.—Chronological Products and Equal-Time Commutators in Perturbation Theory (T)—A. I. Vainshtein and V. V. Sokolov. 16(1), 112-6 (Jan. 1973); CPM-7304E0216
- Sokolov, Yu. V.—Spin Dependence of the Density of the Particle-Hole State of Atomic Nuclei in the Fermi-Gas Model (T)—Yu. V. Sokolov. 16(1), 14-6 (Jan. 1973); CPM-7304E0118
- Density of Excited Particle Hole States in the Shell Model (E)—A. V. Ignatyuk and Yu. V. Sokolov. 16(2), 155-8 (Feb. 1973); CPM-7304E0258
- Sokolovskii, L. L.—De-Excitation of Even-Odd Nuclei in the Range $91 \leq N \leq 113$ After Capturing Thermal Neutrons (T)—L. V. Groshev, A. M. Demidov and L. L. Sokolovskii. 16(3), 245-8 (Mar. 1973); CPM-7306D0341
- Solov'ev, B. G.—On the Capability of Neutron Spectroscopy for the Study of Highly Excited States (Resonances) (T)—B. G. Solov'ev. 15(4), 410-5 (Oct. 1972); CPM-7212D1955
- Solov'ev, V. A.—Backward Scattering of Deutrons by Light Nuclei (E)—V. A. Matusevich, V. A. Solov'ev and I. P. Chernov. 15(4), 375-6 (Oct. 1972); CPM-7212D1920
- Solov'ev, V. G.—Magnetic Moments of Highly Excited States of Atomic Nuclei (T)—V. V. Voronov and V. G. Solov'ev. 16(6), 653-6 (Jun. 1973); CPM-7310E1501
- Solov'ev, V. V.—The Decays $\eta \rightarrow \pi\pi\gamma$, $\eta \rightarrow 2\gamma$ and $\eta \rightarrow \pi\pi\gamma\gamma$ and the Form Factor of the Vector Current in K_{μ} Decay (T)—V. V. Solov'ev and M. V. Terent'ev. 16(1), 82-6 (Jan. 1973); CPM-7304E0186
- Solov'eva, Z. I.—Mass Distribution of Products of Long-Range-Particle Fission (T)—V. G. Bogdanov, Z. I. Solov'eva, O. E. Shigaev and V. S. Bychenkov. 15(2), 119-20 (Aug. 1972); CPM-7210C1380
- Erratum: Mass Distribution of Products of Long-range-particle Fission [9, 427 (1962)] (T)—V. G. Bogdanov, Z. I. Solov'eva, O. E. Shigaev and V. S. Bychenkov. 15(4), 473-4 (Oct. 1972); CPM-7212D2018
- An Investigation of the (n, α) Reaction Between 4.9-MeV Neutrons and Light Nuclei of a Photographic Emulsion (E)—M. V. Kirichenko and Z. I. Solov'eva. 16(1), 9-10 (Jan. 1973); CPM-7304E0113
- Sorokin, P. V.—Photofission and Photofragmentation of Tantalum (E)—V. I. Kasilov, A. V. Mitrofanova, Yu. N. Ranyuk and P. V. Sorokin. 15(3), 228-31 (Sep. 1972); CPM-7211A1857
- Study of (γ, T) Reactions in Nuclei with Bremsstrahlung Energies up to 1200 MeV (E)—Yu. P. Antuf'ev, V. L. Agranovich, V. B. Ganenko, V. S. Kuz'menko, I. I. Miroshnichenko, P. V. Sorokin and S. V. Shalatskii. 15(4), 357-60 (Oct. 1972); CPM-7212D1902
- Anisotropy in the Angular Distribution of Fragments from Photofission at High Energies (E)—N. A. Demekhina, V. I. Kasilov, A. V. Mitrofanova, Yu. N. Ranyuk and P. V. Sorokin. 16(5), 502-4 (May 1973); CPM-7309D1218
- Spasskaya, T. I.—Proton Elastic Scattering by Ca Nuclei in the Energy Region 5.0-6.4 MeV (E)—E. A. Romanovskii, E. I. Sirotin, T. I. Spasskaya, K. S. Shishkin and V. D. Aleshin. 15(4), 365-6 (Oct. 1972); CPM-7212D1910
- Spasskii, A. V.—Investigation of Angular Correlations in the Reactions $B^{10}(\alpha, d_1)C^{12}_{4,43}$, $B^{11}(\alpha, t_1)C^{12}_{4,43}$, and $C^{12}(\alpha, \alpha_1)C^{12}_{4,43}$ (E)—A. A. El-Kamhavi, G. S. Gurevich, N. V. Orlova, A. V. Spasskii, I. B. Teplov and D. A. Shalabae. 15(3), 241-3 (Sep. 1972); CPM-7211A1870
- The (α, t) Reaction in Li^7 and B^{11} (E)—O. I. Vasil'eva, N. V. Karabanov, V. M. Lebedev, A. V. Spasskii and I. B. Teplov. 16(3), 257-9 (Mar. 1973); CPM-7306D0353
- Starodubskii, V. E.—Inclusion of Nucleon Correlations in the Glauber Picture of the Scattering of High-Energy Particles by Nuclei (T)—V. E. Starodubskii. 16(5), 522-8 (May 1973); CPM-7309D1238
- Staudenmaier, H. M.—Estimate of the $\pi\pi$ Scattering Length a_0 by the Method of Separating the Triangle Graph Contribution in the Reactions $\pi N \rightarrow \pi\pi N$ (T/E)—S. A. Bunyatov, V. S. Kurbatov, A. K. Likhoded and H. M. Staudenmaier. 16(6), 709-12 (Jun. 1973); CPM-7310E1557
- Stepanets, L. N.—Investigation of Underground Nuclear Interactions of Cosmic Ray Muons (E)—I. B. Bezrukov, V. I. Beresnev, G. T. Zatsepina, M. I. Nyunin, O. G. Ryazhskaya and L. N. Stepanets. 15(2), 176-83 (Aug. 1972); CPM-7210C1437
- Stepula, E. V.—Electroproduction of Pions from Protons at Threshold for Momentum Transfers up to $10.4 F^{-2}$ (E/T)—Yu. I. Titov, N. F. Severin, N. G. Afanas'ev, R. V. Akhmerov, S. A. Byvalin, E. V. Stepula and E. M. Smelov. 15(3), 273-5 (Sep. 1972); CPM-7211A1902
- Inelastic Scattering of Electrons by Protons and Li^6 Nuclei (E)—Yu. I. Titov and E. V. Stepula. 15(4), 361-4 (Oct. 1972); CPM-7212D1906
- Steshenko, A. I.—Derivation of Bohr-Mottelson Collective Model Equations on the Basis of the Many-Body Problem Hamiltonian (T)—A. Ya. Dzyublik, V. I. Ovcharenko, A. I. Steshenko and G. F. Filippov. 15(5), 487-92 (Nov. 1972); CPM-7302E0013

- torizhko, V. E.**— Mn^{54} Levels (E)—V. M. Mishchenko, A. I. Popov and V. E. Storizhko. 15(4), 343-6 (Oct. 1972); CPM-7212D1888
- torozhenko, S. A.**—Short-Range Nucleon-Nucleon Repulsion and Low-Energy Three-Nucleon Parameters (T)—V. F. Kharchenko, S. A. Shadchin and S. A. Storozhenko. 15(5), 493-6 (Nov. 1972); CPM-7302E0019
- toyanova, D. A.**—Total Cross Sections of the π^+p and π^+d Interactions in the Momentum Region 15-60 GeV/c and the Glauber Correction (E)—Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. I. Petrukhin, Yu. D. Prokoshkin and D. A. Stoyanova. 15(5), 530-3 (Nov. 1972); CPM-7302E0056
- Measurement of Total Cross Sections in the Momentum Region up to 65 BeV/c by a Hodoscopic Method (E)—Yu. B. Bushnin, Yu. P. Gorin, S. P. Denisov, S. V. Donskov, A. F. Dunaitsev, R. N. Krasnokutskii, Yu. V. Mikhailov, A. I. Petrukhin, Yu. D. Prokoshkin, E. A. Razuvaev, D. A. Stoyanova and R. S. Shuvalov. 16(6), 674-7 (Jun. 1973); CPM-7310E1522
- Strakhovenko, V. M.**—Erratum: Higher-order Effects in External Field: Pair Production by a Particle [14, 572 (5)] (T)—V. N. Baier, V. M. Katkov and V. M. Strakhovenko. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Strazhev, V. I.**—Discrete Symmetries in Electrodynamics (T)—V. I. Strazhev and Vin Kuang Nguyen. 16(3), 343-6 (Mar. 1973); CPM-7306D0439
- Strel'tsov, I. S.**—Momentum Characteristics of Pion-Nucleon Interactions at 60 BeV (E)—Zh. S. Takibaev, I. Ya. Chasnikov, A. Kh. Vinitskii, V. G. Voinov, Ts. I. Shakhova, I. S. Strel'tsov and Z. V. Anzon. 16(3), 300-3 (Mar. 1973); CPM-7306D0396
- Strizhak, V. I.**—Excitation of Collective States of Some Medium Nuclei by 14-MeV Neutrons (E)—B. E. Leshchenko, M. E. Gurtovoi, A. S. Kukhlenko and V. I. Strizhak. 15(1), 5-9 (Jul. 1972); CPM-7209C0957
- Strugalski, Z.**—Cascade Curves and Fluctuations of Average Characteristics of the Development of Showers Produced by 1600-MeV γ Quanta in Liquid Xenon (E)—B. Slowinski, Z. Strugalski and W. Hubert. 16(4), 410-1 (Apr. 1973); CPM-7309D1126
- Struminski, B. V.**—Application of the Methods of Statistical Mechanics to Dual Resonance Models (T)—G. P. Demchenko, V. N. Kukhtin and B. V. Struminski. 16(5), 511-3 (May 1973); CPM-7309D1227
- Struyk, Yu. S.**—Analysis of Proton Angular Distributions in (α, p) Reactions with the Nuclei Si^{28} , P^{31} , Cl^{35} , Fe^{56} , Cu^{63} and Cu^{65} in the Three-Nucleon Stripping Theory (E)—Yu. S. Struyk and V. V. Tokarevskii. 15(6), 614-7 (Dec. 1972); CPM-7302E0140
- Subnyi, Yu. K.**—Lifetime of the 2.734-MeV Level of Sr^{88} (E)—D. K. Kaipov, Yu. G. Kosyak, L. N. Smirin and Yu. K. Subnyi. 15(6), 603-4 (Dec. 1972); CPM-7302E0129
- Suetin, V. A.**— $\pi p \rightarrow \pi^+ \pi^0 p$ Reaction at $p_{\pi^+} = 4.45$ GeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, V. A. Suetin, M. M. Sulkovskaya and A. F. Sustavov. 16(3), 298-9 (Mar. 1973); CPM-7306D0394
- Suleimanov, R. A.**—Comparison of the Characteristics of the Interaction of Protons and Neutrons with C, Fe, and Pb Nuclei (E)—M. O. Azaryan, É. A. Mamidzhanyan, R. M. Mbitirosov and R. A. Suleimanov. 16(6), 678-81 (Jun. 1973); CPM-7310E1526
- Sulkovskaya, M. M.**—The Reaction $\pi p \rightarrow \pi^+ \pi^+ n$ at $p_{\pi^+} = 4.45$ BeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, M. M. Sulkovskaya and A. F. Sustavov. 15(2), 166-8 (Aug. 1972); CPM-7210C1427
- $\pi p \rightarrow \pi^+ \pi^0 p$ Reaction at $p_{\pi^+} = 4.45$ GeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, V. A. Suetin, M. M. Sulkovskaya and A. F. Sustavov. 16(3), 298-9 (Mar. 1973); CPM-7306D0394
- Surovtsev, Yu. S.**—Quasithreshold Behavior of the Amplitude of the Process $\pi + N \rightarrow N + (\text{Virtual } \gamma)$ (T)—Yu. S. Surovtsev and F. G. Tkebuchava. 16(6), 713-4 (Jun. 1973); CPM-7310E1561
- Sustavov, A. F.**—The Reaction $\pi p \rightarrow \pi^+ \pi^+ n$ at $p_{\pi^+} = 4.45$ BeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, M. M. Sulkovskaya and A. F. Sustavov. 15(2), 166-8 (Aug. 1972); CPM-7210C1427
- $\pi p \rightarrow \pi^+ \pi^0 p$ Reaction at $p_{\pi^+} = 4.45$ GeV/c (E)—A. A. Kartamyshev, K. N. Mukhin, A. S. Romantseva, V. A. Suetin, M. M. Sulkovskaya and A. F. Sustavov. 16(3), 298-9 (Mar. 1973); CPM-7306D0394
- Swiridov, V. A.**—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Swiridov, Chyong B'en and M. G. Shafranov. 15(6), 650-3 (Dec. 1972); CPM-7302E0176
- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Swiridov, Chyung Bien and M. G. Shafranov. 16(1), 50-6 (Jan. 1973); CPM-7304E0154

T

- Takhtamyshev, G. G.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovnenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Takibaev, N. Zh.**—Sum Rules for Potential Scattering (T)—D. A. Kirzhnits and N. Zh. Takibaev. 16(2), 242-3 (L) (Feb. 1973); CPM-7304E0345
- Takibaev, Zh. S.**—Analysis of the Angular and Energy Characteristics of Secondary Particles Produced in Proton-Proton Interactions at 10 BeV/c (E)—Zh. S. Takibaev, M. G. Antonova, É. G. Boos, D. I. Ermilova, L. A. San'ko, T. Temiraliev and A. V. Kholmetskaya. 15(1), 38-43 (Jul. 1972); CPM-7209C0990
- Production of Fast Helium and Triton Nuclei in an Interaction of High-Energy Pions with Heavy Emulsion Nuclei (E)—A. I. Borisenko, A. P. Kazanskaya, P. V. Morozova, Zh. S. Takibaev and N. S. Titova. 15(4), 419-22 (Oct. 1972); CPM-7212D1964
- Momentum Characteristics of Pion-Nucleon Interactions at 60 BeV (E)—Zh. S. Takibaev, I. Ya. Chasnikov, A. Kh. Vinitskii, V. G. Voinov, Ts. I. Shakhova, I. S. Strel'tsov and Z. V. Anzon. 16(3), 300-3 (Mar. 1973); CPM-7306D0396
- Study of Four Prong pp Interaction at a Momentum 19.1 GeV/c (E)—Zh. S. Takibaev, É. G. Boos, L. A. San'ko, T. I. Mukhordova, A. M. Mosienko, K. G. Zaitsev and K. V. Sharapov. 16(5), 537-41 (May 1973); CPM-7309D1253
- Talanin, Yu. N.**—Analysis of the Proton Spectrum from the $D(n,p)2n$ Reaction (E)—B. G. Skorodumov, M. P. Gol'dberg and Yu. N. Talanin. 15(3), 234-8 (Sep. 1972); CPM-7211A1863
- Tarasevich, S. V.**—K-Meson Charge Exchange and Factorization of the Effective Residues of Complex Poles (T)—N. P. Zotov, S. V. Tarasevich and V. A. Tsarev. 15(2), 209-10 (Aug. 1972); CPM-7210C1470
- Tarasov, A. V.**—Double Charge Exchange of π Mesons on Nuclei at High Energies (T)—S. R. Gevorkyan, A. V. Tarasov and Ch. Tséren. 15(1), 34-7 (Jul. 1972); CPM-7209C0986
- Noncoherent Photoproduction of Vector Mesons on Nuclei at Large Momentum Transfers (T)—S. R. Gevorkyan and A. V. Tarasov. 15(2), 141-2 (Aug. 1972); CPM-7210C1402
- Radiation Corrections to the ep Scattering Cross Section at Small Angles with Detection of the Recoil Proton (T)—A. P. Vanzha, S. R. Gevorkyan and A. V. Tarasov. 16(2), 199-200 (Feb. 1973); CPM-7304E0302
- Electromagnetic Effects in Expolarization in Meson-Nucleon Scattering (T)—A. P. Vanzha, L. I. Lapidus and A. V. Tarasov. 16(5), 565-70 (May 1973); CPM-7309D1281
- Rescattering Effects in the $pd \rightarrow pppn$ Reaction (T)—B. M. Golovin, G. I. Lykasov, A. M. Rozanova and A. V. Tarasov. 16(5), 602-4 (May 1973); CPM-7309D1318
- Tartakovskii, V. K.**—Dependence of the Electro-Excitation Cross Section of Some Light Nuclei on the Choice of the Coupling Scheme (T)—V. K. Tartakovskii and A. V. Fursacv. 15(1), 31-3 (Jul. 1972); CPM-7209C0983
- Scattering of High-Energy Electrons by H^3 and He^3 Nuclei (T)—A. G. Sitenko, I. V. Kozlovskii and V. K. Tartakovskii. 15(4), 406-9 (Oct. 1972); CPM-7212D1951

- Two-Particle Electrodintegration of He^3 (T)—I. V. Kozlovskii, V. K. Tartakovskii and A. D. Foursat. 16(3), 277–81 (Mar. 1973); CPM-7306D0373
- Telitsyn, V. B.**—Collective 0^+ and 2^+ States in Deformed Nuclei (T)—B. A. Rumyantsev and V. B. Telitsyn. 15(4), 387–91 (Oct. 1972); CPM-7212D1932
- Temiraliyev, T.**—Analysis of the Angular and Energy Characteristics of Secondary Particles Produced in Proton-Proton Interactions at 10 BeV/c (E)—Zh. S. Takibaev, M. G. Antonova, E. G. Boos, D. I. Ermilova, L. A. San'ko, T. Temiraliyev and A. V. Kholmetskaya. 15(1), 38–43 (Jul. 1972); CPM-7209C0990
- Teplov, I. B.**—Investigation of Angular Correlations in the Reactions $\text{B}^{10}(\alpha, d_1)\text{C}^{12}_{4,43}$, $\text{B}^{11}(\alpha, t_1)\text{C}^{12}_{4,43}$, and $\text{C}^{12}(\alpha, \alpha_1)\text{C}^{12}_{4,43}$ (E)—A. A. El-Kamhavi, G. S. Gurevich, N. V. Orlova, A. V. Spasskii, I. B. Teplov and A. A. Shalabaev. 15(3), 241–3 (Sep. 1972); CPM-7211A1870
- Structure Factor of Elastic α -Particle and Deuteron Scattering for the Heavy-Particle Stripping Mechanism (T)—T. A. Dmitrieva and I. B. Teplov. 15(3), 266–8 (Sep. 1972); CPM-7211A1895
- The (α, t) Reaction in Li^7 and B^{11} (E)—O. I. Vasil'eva, N. V. Karabanov, V. M. Lebedev, A. V. Spasskii and I. B. Teplov. 16(3), 257–9 (Mar. 1973); CPM-7306D0353
- Teplykh, V. F.**—Relative Yields of Xenon Isotopes in Np^{237} and Np^{238} Fission by Neutrons (E)—K. A. Petrzhak, M. G. Pan'yan, V. F. Teplykh and B. M. Aleksandrov. 15(5), 482–3 (Nov. 1972); CPM-7302E0008
- Terent'ev, M. V.**—Possible CPT-Breaking Effects and the Decay $K_L \rightarrow 2\mu$ (T)—E. B. Bogomol'ny, A. D. Dolgov, V. I. Zakharov, L. B. Okun' and M. V. Terent'ev. 15(5), 549–53 (Nov. 1972); CPM-7302E0075
- Structure of Observable Amplitudes for Photon — “Soft” Pion Interaction (E)—M. V. Terent'ev. 15(6), 665–74 (Dec. 1972); CPM-7302E0191
- The Decays $\eta \rightarrow \pi\pi\gamma$, $\eta \rightarrow 2\gamma$ and $\eta \rightarrow \pi\pi\gamma\gamma$ and the Form Factor of the Vector Current in K_4 Decay (T)—V. V. Solov'ev and M. V. Terent'ev. 16(1), 82–6 (Jan. 1973); CPM-7304E0186
- Pion Polarizability, Virtual Compton Effect, and the Decay $\pi \rightarrow e\nu\gamma$ (T)—M. V. Terent'ev. 16(1), 87–93 (Jan. 1973); CPM-7304E0191
- The Sign of the $\pi^0 \rightarrow 2\gamma$ Electromagnetic Decay Constant (T)—M. V. Terent'ev. 16(5), 576–9 (May 1973); CPM-7309D1292
- Ter-Isaakyan, N. L.**—Electromagnetic Production of W-Meson Pairs (T)—N. L. Ter-Isaakyan and V. A. Khoze. 15(1), 51–5 (Jul. 1972); CPM-7209C1003
- Electromagnetic Mechanism of Inelastic Hadron Collision at High Energies (T)—S. G. Matinyan, N. L. Ter-Isaakyan, V. A. Khoze and Yu. G. Shakhnazaryan. 16(4), 440–4 (Apr. 1973); CPM-7309D1156
- Ternov, I. M.**—Induced Emission of Electrons in Plane Electromagnetic Waves (T)—I. M. Ternov and V. R. Khalilov. 16(1), 94–8 (Jan. 1973); CPM-7304E0198
- Tikhonin, F. F.**—Muon Pair Production in $\mu\mu$ Collisions (E)—M. N. Kobrinskii and F. F. Tikhonin. 15(6), 685–6 (Dec. 1972); CPM-7302E0211
- Tishin, A. S.**—Structure of the One-Particle Spectrum and Energy Dependence of Γ/Γ_n (T)—A. V. Ignatyuk, G. N. Smirenkin and A. S. Tishin. 15(6), 622–5 (Dec. 1972); CPM-7302E0148
- Po^{210} Fission in $\text{Pb}^{206}(\alpha, f)$ Reaction (E)—M. G. Itkis, K. G. Kuvatov, V. N. Okolovich, G. Ya. Ruskina, G. N. Smirenkin and A. S. Tishin. 16(2), 144–50 (Feb. 1973); CPM-7304E0247
- Titarenko, N. N.**—Partial Widths and Strong Coupling of Channels (T)—S. I. Grishanova, S. D. Niledvin, N. N. Titarenko and E. L. Yadrovskii. 15(3), 264–5 (Sep. 1972); CPM-7211A1893
- Knock-Out Reactions in Quasielastic and Antiquasielastic Kinematics (T)—V. V. Balashov, N. M. Kabachnik and N. N. Titarenko. 16(5), 622/L (May 1973); CPM-7309D1338
- Titov, Yu. I.**—Electroproduction of Pions from Protons at Threshold for Momentum Transfers up to 10.4 F^{-2} (E/T)—Yu. I. Titov, N. F. Severin, N. G. Afanas'ev, R. V. Akhmerov, S. A. Byvalin, E. V. Stepula and E. M. Smelov. 15(3), 273–5 (Sep. 1972); CPM-7211A1902
- Inelastic Scattering of Electrons by Protons and Li^6 Nuclei (E)—Yu. I. Titov and E. V. Stepula. 15(4), 361–4 (Oct. 1972); CPM-7212D1906
- Titova, N. S.**—Production of Fast Helium and Triton Nuclei in an Interaction of High-Energy Pions with Heavy Emulsion Nuclei (E)—A. I. Borisenko, A. P. Kazanskaya, P. V. Morozova, Zh. S. Takibaev and N. S. Titova. 15(4), 419–22 (Oct. 1972); CPM-7212D1964
- Tkebuchava, F. G.**—Quasithreshold Behavior of the Amplitude of the Process $\pi + N \rightarrow N + (\text{Virtual } \gamma)$ (T)—Yu. S. Surovtsev and F. G. Tkebuchava. 16(6), 713–4 (Jun. 1973); CPM-7310E1561
- Todorov, P.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14–42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshyev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534–7 (Nov. 1972); CPM-7302E0060
- Tokarevskii, V. V.**—Influence of Nonlocality on Inelastic α -Particle Scattering (T)—V. V. Tokarevskii. 15(5), 503–7 (Nov. 1972); CPM-7302E0029
- Analysis of Proton Angular Distributions in (α, p) Reactions with the Nuclei Si^{28} , P^{31} , Cl^{35} , Fe^{56} , Cu^{63} and Cu^{65} in the Three-Nucleon Stripping Theory (E)—Yu. S. Stryuk and V. V. Tokarevskii. 15(6), 614–7 (Dec. 1972); CPM-7302E0140
- Tolstov, K. D.**—Interactions of 2.43-GeV/c Deuterons with Photographic Emulsion Nuclei (E)—E. Silesh, K. D. Tolstov, J. Tuček and G. S. Shabratovala. 16(1), 57–9 (Jan. 1973); CPM-7304E0161
- Trebukhovskii, Yu. V.**—Study of the Reaction $\pi + p \rightarrow n + m\gamma$ ($m \leq 3$) at 2.94 GeV/c (E)—V. V. Barmin, V. M. Golubchikov, G. V. Davidenko, A. G. Dolgolenko, V. A. Ergakov, A. G. Meshkovskii, L. S. Novikov, I. I. Pershin, S. V. Skachkov, Yu. V. Trebukhovskii, T. A. Chistyakova and V. A. Shebanov. 15(2), 163–5 (Aug. 1972); CPM-7210C1424
- Tret'yakova, S. P.**—Lifetimes of Excited Compound Nuclei in the Range $79 < Z < 89$, Measured by Means of the Shadow Effect (E)—V. V. Kamanin, S. A. Karamyan, F. Normuratov and S. P. Tret'yakova. 16(3), 249–52 (Mar. 1973); CPM-7306D0345
- Troyan, Yu. A.**—Analysis of the $n\bar{p}$ - $pp\pi^-$ Reaction from the Point of View of a Reggeized OPE Model (E)—K. G. Borekov, A. P. Gasparyan, A. B. Kaidalov, A. V. Nikitin, Yu. A. Troyan and L. A. Ponomarev. 15(3), 309–13 (Sep. 1972); CPM-7211A1938
- Trubkin, Yu. A.**—Influence of Single Scattering Processes on the Horizontal Fluxes of Cosmic Muons in Water (T)—A. T. Machun, Yu. A. Trubkin and V. M. Fedorov. 16(2), 191–3 (Feb. 1973); CPM-7304E0294
- Trusillo, S. V.**—Levels and γ Transitions in Cu^{64} from the Reaction $\text{Ni}^{64}(p, n\gamma)\text{Cu}^{64}$ (E)—B. Ya. Guzhovskii, S. N. Abramovich, A. G. Zvenigorodskii and S. V. Trusillo. 16(2), 123–6 (Feb. 1973); CPM-7304E0226
- Tsarev, V. A.**—K-Meson Charge Exchange and Factorization of the Effective Residues of Complex Poles (T)—N. P. Zotov, S. V. Tarasevich and V. A. Tsarev. 15(2), 209–10 (Aug. 1972); CPM-7210C1470
- Photoproduction of π^0 Mesons from Nucleons in the Complex Regge Pole Model (T)—N. P. Zotov, Yu. A. Rakov and V. A. Tsarev. 15(3), 307–8 (Sep. 1972); CPM-7211A1936
- Fixed Pole in the Virtual Compton-Effect Amplitude (T)—Yu. A. Rakov and V. A. Tsarev. 15(5), 574–5 (Nov. 1972); CPM-7302E0100
- Allowance for the Cuts on the Basis of the Regge Complex Pole Model (T)—N. P. Zotov and V. A. Tsarev. 16(2), 226–8 (Feb. 1973); CPM-7304E0329
- Tsären, Ch.**—Double Charge Exchange of π Mesons on Nuclei at High Energies (T)—S. R. Gevorkyan, A. V. Tarasov and Ch. Tsären. 15(1), 34–7 (Jul. 1972); CPM-7209C0986
- Tsipenyuk, Yu. M.**—Measurement of the Excitation Energy of the Spontaneously Fissioning Isomer $\text{Pu}^{239}(\gamma, n)$ (E)—Yu. P. Gangrskii, V. N. Markov, I. F. Kharisov and Yu. M. Tsipenyuk. 16(2), 151–4 (Feb. 1973); CPM-7304E0254
- Tsugulea, M. N.**— K_{13} Decays and Chiral Symmetry Breaking (T)—B. A. Magradze, M. N. Tsugulea and M. A. Eliashvili. 15(3), 294–5 (Sep. 1972); CPM-7211A1923
- Tuček, J.**—Interactions of 2.43-GeV/c Deuterons with Photographic Emulsion Nuclei (E)—E. Silesh, K. D. Tolstov, J. Tuček and G. S. Shabratovala. 16(1), 57–9 (Jan. 1973); CPM-7304E0161
- Turchin, Yu. M.**—Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of CF^{249} (E)—K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kosyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentsev and V. N. Okolovich. 15(1), 17–9 (Jul. 1972); CPM-7209C0969

- ursunov, R. A.**—Charged Particle Distribution in Inelastic Proton-Neutron Interactions at 19.2 GeV/c (E)—E. G. Boos, B. O. Zhaitykov, E. S. Lukin, A. M. Mosienko and R. A. Tursunov. 16(2), 187-8 (Feb. 1973); CPM-7304E0290
- tyrroff, H.**—Investigation of the Decay of Ti^{194} (E)—B. Amov, T. Vandlik, J. Vandlik, Ts. Vylov, Zh. Zhelev, N. G. Zaitseva, I. Penev and H. Tyrroff. 16(5), 487-90 (May 1973); CPM-7309D1203
- ys, J.**—Angular Distribution and Excitation Functions of the Reactions (N^{15} , N^{16}), (N^{14} , N^{16}), (N^{15} , N^{17}), (N^{14} , N^{17}) (E)—A. G. Artyukh, V. V. Volkov, L. Pomorski and J. Tys. 16(5), 499-501 (May 1973); CPM-7309D1215
- yrin, N. E.**—Connection of the Total Cross Section with the Diffraction Peak of Elastic Scattering (T)—V. I. Savrin, S. V. Semenov, N. E. Tyurin and O. A. Khrustalev. 16(2), 214-6 (Feb. 1973); CPM-7304E0317
- tyutin, I. V.**—Quantization of Massive Gravitation (T)—I. V. Tyutin and E. S. Fradkin. 15(3), 331-4 (Sep. 1972); CPM-7211A1960
- The Theory of a Neutral Gauge Field with Spontaneous Symmetry Breaking (T)—I. V. Tyutin and E. S. Fradkin. 16(4), 464-72 (Apr. 1973); CPM-7309D1180
- ## U
- ukhrin, Ya.**—Lifetimes of the Rotational Levels of Yb^{164} Measured by the Doppler Effect in the Recoil Nuclei (E)—B. Bochev, S. A. Karamyan, T. Kutsarova, Ya. Ukhrein, E. Nadzhakov, Ts. Venkova and R. Kalpakchieva. 16(4), 355-8 (Apr. 1973); CPM-7309D1071
- urvan, L.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshv, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- ## V
- vainshtein, A. I.**—Chronological Products and Equal-Time Commutators in Perturbation Theory (T)—A. I. Vainshtein and V. V. Sokolov. 16(1), 112-6 (Jan. 1973); CPM-7304E0216
- valkar, Sh.**—Investigation of the Reactions $\pi p \rightarrow \pi \pi^+ \pi^- + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzhev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- vall, A. N.**—Dynamic Model for the 33 Phase Shift of πN Scattering (T)—A. N. Vall, Yu. H. Kafiev and V. V. Serebryakov. 16(1), 106-8 (Jan. 1973); CPM-7304E0210
- val'skii, G. V.**—Searches for the Spontaneously Fissioning Isomer Pu^{240m} in the Thermal-Neutron Capture Reaction (E)—G. V. Val'skii, O. M. Mrachkovskii, G. A. Petrov and Yu. S. Pleva. 16(4), 374-5 (Apr. 1973); CPM-7309D1090
- vandlik, J.**—Investigation of the Decay of Ti^{194} (E)—B. Amov, T. Vandlik, J. Vandlik, Ts. Vylov, Zh. Zhelev, N. G. Zaitseva, I. Penev and H. Tyrroff. 16(5), 487-90 (May 1973); CPM-7309D1203
- vandlik, T.**—Investigation of the Decay of Ti^{194} (E)—B. Amov, T. Vandlik, J. Vandlik, Ts. Vylov, Zh. Zhelev, N. G. Zaitseva, I. Penev and H. Tyrroff. 16(5), 487-90 (May 1973); CPM-7309D1203
- vanzha, A. P.**—Radiation Corrections to the ep Scattering Cross Section at Small Angles with Detection of the Recoil Proton (T)—A. P. Vanzha, S. R. Gevorkyan and A. V. Tarasov. 16(2), 199-200 (Feb. 1973); CPM-7304E0302
- Electromagnetic Effects in Exponentialization in Meson-Nucleon Scattering (T)—A. P. Vanzha, L. I. Lapidus and A. V. Tarasov. 16(5), 565-70 (May 1973); CPM-7309D1281
- Vartapetyan, G. A.**—Photoproduction of Single π^+ Mesons on Nuclei at $E_\gamma = 2$ and 3 GeV. The Parameters of the Proton-Neutron Distribution (E)—L. O. Abramyan, A. O. Agan'yants, F. V. Adamyan, G. A. Vartapetyan, A. L. Bat'yan, S. R. Gevorkyan, V. D. Danielyan, N. A. Demekhina, M. Kh. Israelyan, G. Kh. Kazaryan, A. N. Lebedev, Zh. V. Manukyan, E. G. Muradyan, A. M. Sirunyan, A. G. Khudaverdyan and L. S. Khurshudyan. 16(4), 412-6 (Apr. 1973); CPM-7309D1128
- Vashakidze, I. Sh.**—Investigation of the Cluster Structure of the Be^8 Nucleus (T)—I. Sh. Vashakidze and T. R. Dzhalaganiya. 16(4), 382-5 (Apr. 1973); CPM-7309D1098
- The Cluster Model and the Structure of the C^{12} Nucleus (T)—I. Sh. Vashakidze and T. R. Dzhalaganiya. 16(5), 519-21 (May 1973); CPM-7309D1235
- Vasil'ev, S. S.**—Correlation of α Particles and γ Rays from the Reaction $Al^{27}(p, \alpha, \gamma)Mg^{24}$ for 6.40-MeV Protons (E)—S. S. Vasil'ev, A. S. Dem'yanova, V. S. Zazulin, S. D. Kostyuchenkov, T. N. Mikhaleva, S. F. Nikyakii and D. L. Chupronov. 15(4), 367-8 (Oct. 1972); CPM-7212D1912
- Vasil'eva, O. I.**—The (α, t) Reaction in Li^7 and B^{11} (E)—O. I. Vasil'eva, N. V. Karabanov, V. M. Lebedev, A. V. Spasskii and I. B. Teplov. 16(3), 257-9 (Mar. 1973); CPM-7306D0353
- Vatset, P. I.**—Photodisintegration of He^4 into Two Deuterons (E)—Yu. M. Arkatov, P. I. Vatset, V. I. Voloshchuk, I. M. Prokhoret, A. F. Khodyachikh and V. I. Chmil. 16(1), 6-8 (Jan. 1973); CPM-7304E0110
- Vedeney, O. V.**—Generation and Interaction of Muons with Energies $E_\mu \sim 10^{12}$ eV (E)—G. B. Khristiansen, O. V. Vedeney and Yu. A. Nechin. 15(5), 538-42 (Nov. 1972); CPM-7302E0064
- Vel'berg, B. V.**—Investigation of (p,pd)—Reaction on Light Nuclei at 50 MeV (E)—V. V. Boikov, B. V. Vel'berg, I. I. Loshchakov and V. I. Ostroumov. 15(3), 239-40 (Sep. 1972); CPM-7211A1868
- The $O^{16}(p, pa)C^{12}$ Reaction with 50-MeV Protons (E)—V. V. Boikov, B. V. Vel'berg, I. I. Loshchakov and V. I. Ostroumov. 16(5), 497-8 (May 1973); CPM-7309D1213
- Venkova, Ts.**—Lifetimes of the Rotational Levels of Yb^{164} Measured by the Doppler Effect in the Recoil Nuclei (E)—B. Bochev, S. A. Karamyan, T. Kutsarova, Ya. Ukhrein, E. Nadzhakov, Ts. Venkova and R. Kalpakchieva. 16(4), 355-8 (Apr. 1973); CPM-7309D1071
- Vertebnyi, V. P.**—Level Density of Compound Nuclei with $A = 130-200$ and Other Nuclear Properties (E)—V. P. Vertebnyi, A. I. Kalchenko and M. V. Pasechnik. 16(1), 19-20 (Jan. 1973); CPM-7304E0123
- Vertogradov, L. S.**—Estimate of Pion and Nucleon Form Factors from an Analysis of the Process $\pi p \rightarrow e^+ e^- n$ at $E_{kin} = 275$ MeV (E)—S. F. Bereznev, L. S. Vertogradov, A. V. Dem'yanov, A. V. Kulikov, A. V. Kuptsov, G. G. Mkrtchyan, L. L. Nemenov, G. I. Smirnov, D. M. Khazins and Yu. M. Chirkin. 16(1), 99-102 (Jan. 1973); CPM-7304E0203
- Vestergombi, D.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshv, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Viktorov, D. V.**—Cross-Sections for (n,2n) Reactions on Ga, As, Sm, Gd for 14.1 MeV Neutrons (E)—D. V. Viktorov and V. L. Zyablin. 15(6), 608-9 (Dec. 1972); CPM-7302E0134
- Vil'gel'mova, L.**—Probability of (μ^-, ν) Process on La^{139} and Pb^{208} Nuclei (E)—G. G. Bunatyan, L. Vil'gel'mova, V. S. Evseev, L. N. Nikityuk, V. N. Pokrovskii, V. N. Rybakov and I. A. Yutlandov. 15(5), 526-7 (Nov. 1972); CPM-7302E0052
- Vinit'skii, A. Kh.**—Momentum Characteristics of Pion-Nucleon Interactions at 60 BeV (E)—Zh. S. Takibaev, I. Ya. Chasnikov, A. Kh. Vinit'skii, V. G. Voinov, Ts. I. Shakhova, I. S. Strel'tsov and Z. V. Anzon. 16(3), 300-3 (Mar. 1973); CPM-7306D0396
- Vinogradov, V. B.**—Production of Pairs of Λ^0 Hyperons in Interactions of π^- Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, Zh. K. Karamyan, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44-6 (Jul. 1972); CPM-7209C0996

- Investigation of the Reactions $\pi p \rightarrow \pi^+ \pi^- + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Vinogradov, V. N.—Construction of Physical Bases for the Groups O(5) and SU(3) with Automatic Performance of Symbolic Transformations (T)—V. N. Vinogradov, E. V. Gai, S. I. Popov, N. S. Rabotnov and I. B. Shchenkov. 16(6), 647-52 (Jun. 1973); CPM-7310E1495
- Voinov, V. G.—Momentum Characteristics of Pion-Nucleon Interactions at 60 BeV (E)—Zh. S. Takibaev, I. Ya. Chasnikov, A. Kh. Vinititskii, V. G. Voinov, Ts. I. Shakhova, I. S. Strel'tsov and Z. V. Anzon. 16(3), 300-3 (Mar. 1973); CPM-7306D0396
- Voklov, E. I.—Fluctuations in Angular Distribution of Particles Produced at High Energies and Bimodality (T)—E. I. Voklov. 16(3), 332-4 (Mar. 1973); CPM-7306D0428
- Volkov, D. V.—U(4) Symmetry of Leptons and Quarks (T)—V. P. Akulov and D. V. Volkov. 15(4), 461-3 (Oct. 1972); CPM-7212D2006
- Volkov, V. V.—Angular Distribution and Excitation Functions of the Reactions (N^{15} , N^{16}), (N^{14} , N^{16}), (N^{15} , N^{17}), (N^{14} , N^{17}) (E)—A. G. Artyukh, V. V. Volkov, L. Pomorski and J. Tys. 16(5), 499-501 (May 1973); CPM-7309D1215
- Volkovitskii, P. E.—Calculations of Shadow Effects in Proton-Deuteron Collisions (T)—V. V. Anisovich, P. E. Volkovitskii and L. G. Dakhno. 15(1), 97-9 (Jul. 1972); CPM-7209C1049
- Volodin, K. E.—Neutron Yield and Fragment Kinetic Energy in Thermal-Neutron-Induced Fission of ^{239}Pu (E)—K. E. Volodin, V. G. Nesterov, B. Nurpeisov, G. N. Smirenkin, Yu. M. Turchin, V. N. Kosyakov, L. V. Chistyakov, I. K. Shvetsov, V. M. Shubko, L. N. Mezentsev and V. N. Okolovich. 15(1), 17-9 (Jul. 1972); CPM-7209C0969
- Volod'ko, A. G.—Production of Pairs of Λ^0 Hyperons in Interactions of π^- Mesons with Carbon Nuclei at 5 GeV/c (E)—Y. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, Zh. K. Karamyan, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, V. B. Flyagin and L. Shandor. 15(1), 44-6 (Jul. 1972); CPM-7209C0996
- Investigation of the Reactions $\pi p \rightarrow \pi^+ \pi^- + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Voloshchuk, V. I.—Photodisintegration of He^4 into Two Deuterons (E)—Yu. M. Arkatov, P. I. Vatsel, V. I. Voloshchuk, I. M. Prokhorets, A. F. Khodyachikh and V. I. Chmil. 16(1), 6-8 (Jan. 1973); CPM-7304E0110
- Vongai, A. D.—Investigation of the Mirror Reactions (He^3 , n) and (He^3 , p) on the C^{12} Nucleus (E)—O. D. Brill, A. D. Vongai, K. A. Gridnev and A. R. Faiziev. 16(4), 359-63 (Apr. 1973); CPM-7309D1075
- Voronov, V. V.—Magnetic Moments of Highly Excited States of Atomic Nuclei (T)—V. V. Voronov and V. G. Solov'ev. 16(6), 653-6 (Jun. 1973); CPM-7310E1501
- Vorotnikov, P. E.— CF^{239} Fission Cross Section in the Neutron Energy Range 0.16-1.6 MeV (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, V. N. Kosyakov, G. A. Otroschenko, L. V. Chistyakov, V. A. Shigin and V. M. Shubko. 15(1), 20-1 (Jul. 1972); CPM-7209C0972
- Angular Distributions of Fragments in Neutron-Induced Fission of Cf^{249} (E)—P. E. Vorotnikov, B. M. Gokhberg, S. M. Dubrovina, G. A. Otroschenko and V. A. Shigin. 16(4), 372-3 (Apr. 1973); CPM-7309D1088
- Cross Sections for Neutron-Induced Fission of Th^{232} (E)—P. E. Vorotnikov, Z. S. Gladikh, A. V. Davydov, S. M. Dubrovina, G. A. Otroschenko, E. S. Pal'shin, V. A. Shigin and V. M. Shubko. 16(5), 505-6 (May 1973); CPM-7309D1221
- Vovchenko, V. G.—Polarization of 1000-MeV Protons Scattered by Be, C, Al, and Pb Nuclei (E)—V. G. Vovchenko, A. A. Zhdanov, V. M. Zheleznyakov, O. Ya. Fedorov and A. V. Shvedchikov. 16(6), 628-30 (Jun. 1973); CPM-7310E1476
- Vovenko, A. S.—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, I. M. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Taktamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Vylkov, I.—Excitation Energies of the Spontaneously Fissile Isomers of Pu^{240} , Cm^{241} , and Bk^{243} in Reactions with α Particles (E)—I. Vylkov, N. Vylkov, Yu. P. Gangrskii, M. Marinescu, A. A. Pleve, D. Poenaru and I. F. Kharisov. 16(3), 253-6 (Mar. 1973); CPM-7306D0349
- Vylkov, N.—Excitation Energies of the Spontaneously Fissile Isomers of Pu^{240} , Cm^{241} , and Bk^{243} in Reactions with α Particles (E)—I. Vylkov, N. Vylkov, Yu. P. Gangrskii, M. Marinescu, A. A. Pleve, D. Poenaru and I. F. Kharisov. 16(3), 253-6 (Mar. 1973); CPM-7306D0349
- Vylov, Ts.—Investigation of the Decay of Ti^{194} (E)—B. Amov, T. Vandik, J. Vandik, Ts. Vylov, Zh. Zhelev, N. G. Zaitseva, I. Penev and H. Tyrrhoff. 16(5), 487-90 (May 1973); CPM-7309D1203

W

- Weitsch, A.—Missing-Mass Spectra Observed in the Reaction $\pi^- + p \rightarrow p + X^-$ at 25 and 40 GeV/c (E)—Yu. M. Antipov, R. Busnello, A. Weitsch, G. Dangaard, F. A. Eche, M. N. Kienzle-Focacci, W. Kienzle, R. Klanner, L. G. Landsberg, A. A. Lebedev, C. Lechanoine, P. Lecomte, M. Martin, V. Roinishvili and R. D. Sard. 16(5), 550-3 (May 1973); CPM-7309D1266
- Wojtkowska, I.—Angular Distribution of Low Energy Neutrons from Nuclear μ^- Capture in Sulfur and Calcium (E)—I. Wojtkowska, V. S. Evseev, T. Kozlowski, A. A. Nikolina and V. S. Roganov. 15(5), 523-5 (Nov. 1972); CPM-7302E0049
- Neutron Energy Spectrum from Absorption of Negative Muons by O, S, Ca, and Pb Nuclei (E)—I. Wojtkowska, V. S. Evseev, T. Kozlowski and V. S. Roganov. 15(6), 639-44 (Dec. 1972); CPM-7302E0165

Y

- Yadrovskii, E. L.—Partial Widths and Strong Coupling of Channels (T)—S. I. Grishanova, S. D. Niledvin, N. N. Titarenko and E. L. Yadrovskii. 15(3), 264-5 (Sep. 1972); CPM-7211A1893
- Yarba, V. A.—Formation of B^8 in Capture of Stopped π^- Mesons by Nitrogen Nuclei (E)—N. M. Agababyan, Yu. A. Batusov, S. A. Bunyatov, G. P. Gulkanyan, V. M. Sidorov and V. A. Yarba. 15(1), 10-1 (Jul. 1972); CPM-7209C0962
- Yatsyuk, V. G.—Investigation of the Reactions $\pi p \rightarrow \pi^+ \pi^- + (1, 2, 3, 4, 5) \pi^0$ AT 5 GeV/c (E)—Yu. A. Budagov, Sh. Valkar, V. B. Vinogradov, A. G. Volodko, V. P. Dzhelepov, V. S. Kladnitskii, S. Kozhukhova, N. K. Koutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, L. Sandor and V. G. Yatsyuk. 15(6), 645-9 (Dec. 1972); CPM-7302E0171
- Yen, Kim De—Production of Gold Isotopes in Bombardment of U^{238} by Xe^{136} Ions (E)—Yu. Ts. Oganesyan, O. A. Orlova, Yu. E. Penionzhkevich, K. A. Gavrilov and Kim De Yen. 16(2), 138-9 (Feb. 1973); CPM-7304E0241
- Yuldashev, B. S.—Note Concerning the Symmetry of the Spectrum of the Longitudinal Pion Momenta in Semi-Inclusive πp Interactions at $p=4$ GeV/c (E)—V. G. Grishin, Sh. V. Inogamov, B. S. Yuldashev and G. Jancso. 16(5), 611-2 (May 1973); CPM-7309D1327
- Yushkov, A. V.—Shapes of Heavy Nuclei (T)—A. V. Yushkov. 16(4), 380-1 (Apr. 1973); CPM-7309D1096
- Yutlandov, I. A.—Probability of (μ^- , ν) Process on La^{139} and Pb^{208} Nuclei (E)—G. G. Bunatyan, L. Vil'gel'mova, V. S. Evseev, L. N. Nikityuk, V. N. Pokrovskii, V. N. Rybakov and I. A. Yutlandov. 15(5), 526-7 (Nov. 1972); CPM-7302E0052

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- Zaitsev, A. M.—Some Comments on the Search for Quarks Using a 70 GeV Accelerator (T/E)—A. M. Zaitsev and L. G. Landsberg. 15(6), 656-64 (Dec. 1972); CPM-7302E0182

- Zaitsev, K. G.**—Study of Four Prong pp Interaction at a Momentum 19.1 GeV/c (E)—Zh. S. Takibaev, E. G. Boos, L. A. San'ko, T. I. Mukhordova, A. M. Mosienko, K. G. Zaitsev and K. V. Sharapov. 16(5), 537-41 (May 1973); CPM-7309D1253
- Zaitseva, N. G.**—Investigation of the Decay of Tl^{194} (E)—B. Amov, T. Vandlik, J. Vandlik, Ts. Vylov, Zh. Zhelev, N. G. Zaitseva, I. Penev and H. Tyrrhoff. 16(5), 487-90 (May 1973); CPM-7309D1203
- Zajacki, V. J.**—Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyung Bien and M. G. Shafranov. 16(1), 50-6 (Jan. 1973); CPM-7304E0154
- Zakharov, V. I.**—Shrinkage Singularities and Asymptotic Behavior of the Weak Interaction Cross Section (T)—A. D. Dolgov, V. I. Zakharov and L. B. Okun'. 15(4), 451-6 (Oct. 1972); CPM-7212D1996
- Possible CPT-Breaking Effects and the Decay $K_L \rightarrow 2\mu$ (T)—E. B. Bogomol'ny, A. D. Dolgov, V. I. Zakharov, L. B. Okun' and M. V. Terent'ev. 15(5), 549-53 (Nov. 1972); CPM-7302E0075
- The $K_L^0 \rightarrow \mu^+ \mu^-$ Decay and a Possible Anomalous Muon-Hadron Interaction (T)—E. B. Bogomol'nyi, A. D. Dolgov, V. I. Zakharov, L. B. Okun', M. A. Shifman and M. Zh. Shmatikov. 16(1), 70-6 (Jan. 1973); CPM-7304E0174
- $K_L \rightarrow 2\mu$ Decay and the Possible Existence of a Light Vector Meson (T)—A. D. Dolgov, A. G. Dolgolenko, V. I. Zakharov and L. B. Okun'. 16(2), 209-13 (Feb. 1973); CPM-7304E0312
- Zakharova, V. P.**—Fission of U^{235} by Thermal Neutrons (E)—V. P. Zakharova, D. K. Ryzanov, B. G. Basova, A. D. Rabinovich and V. A. Kostylev. 16(4), 364-71 (Apr. 1973); CPM-7309D1080
- Zamiralov, V. S.**—Continuous Sum Rules and Asymptotic Total $\pi\pi$ Interaction Cross Sections (E)—Z. R. Babaev and V. S. Zamiralov. 16(6), 718-9 (Jun. 1973); CPM-7310E1566
- Zanevskii, Yu. V.**—Transmission Regeneration of Neutral K Mesons on Hydrogen in the Momentum Region 14-42 GeV/c (E)—V. K. Birulev, A. S. Vovenko, D. Vestergombi, N. N. Govorun, L. B. Golovanov, I. A. Golutvin, T. S. Grigalashvili, B. N. Gus'kov, Yu. V. Zanevskii, M. I. Ivanchenko, V. G. Krivokhizhin, V. V. Kukhtin, D. Kiss, M. F. Likhachev, A. L. Lyubimov, V. L. Mazarskii, A. A. Mitin, E. Nagy, V. D. Peshekhonov, I. A. Savin, Yu. I. Salomatin, V. E. Simonov, L. V. Sil'vestrov, D. A. Smolin, G. G. Takhtamyshev, P. Todorov, L. Urvan and N. G. Fadeev. 15(5), 534-7 (Nov. 1972); CPM-7302E0060
- Zaslavskii, A. N.**—Determination of the Spin-Parity of the $X^0(960)$ Meson in Proton-Antiproton Annihilation at Rest (E)—L. É. Genina, A. N. Zaslavskii and R. Lednický. 15(5), 571-3 (Nov. 1972); CPM-7302E0097
- Dispersion Relations and Data on the Reaction $\gamma n \rightarrow p\pi^-$ in the 33 Resonance Region (T)—I. G. Aznauryan and A. N. Zaslavskii. 15(6), 696-8 (Dec. 1972); CPM-7302E0222
- Chiral $Su(2) \times Su(2)$ Dynamics and the $\pi^+ p \rightarrow \rho^0 \Delta^{++}$ Reaction Close to the Threshold (T/E)—A. N. Zaslavskii and R. Lednický. 16(2), 232-7 (Feb. 1973); CPM-7304E0335
- Zatsepin, G. T.**—Investigation of Underground Nuclear Interactions of Cosmic Ray Muons (E)—I. B. Bezrukov, V. I. Beresnev, G. T. Zatsepin, M. I. Nyunin, O. G. Ryzhskaya and L. N. Stepanets. 15(2), 176-83 (Aug. 1972); CPM-7210C1437
- Zayachki, V. I.**—The Real Part of the Amplitude for Elastic pd-Scattering at an Energy of 70 GeV (E)—V. I. Zayachki, L. G. Khristov, Z. M. Zlatanov and P. A. Devenski. 15(5), 528-9 (Nov. 1972); CPM-7302E0054
- Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650-3 (Dec. 1972); CPM-7302E0176
- Zayats, A. A.**—($\pi\Delta$) Photoproduction on Protons at γ -Quantum Energies 0.6-1 GeV (E)—A. A. Zayats. 16(5), 597-601 (May 1973); CPM-7309D1313
- Zazulin, V. S.**—Correlation of α Particles and γ Rays from the Reaction $Al^{27}(p, \alpha\gamma)Mg^{24}$ for 6.40-MeV Protons (E)—S. S. Vasil'ev, A. S. Dem'yanova, V. S. Zazulin, S. D. Kostyuchenkov, T. N. Mikhaleva, S. F. Nikiyaki and D. L. Chupronov. 15(4), 367-8 (Oct. 1972); CPM-7212D1912
- Zelevinskii, V. G.**—Method of Generalized Density Matrix in the Theory of Collective Excitations (T)—S. T. Belyaev and V. G. Zelevinskii. 16(6), 657-64 (Jun. 1973); CPM-7310E1505
- Zemtsev, B. V.**—Gamma Radiation in Intermediate Neutron Radioactive Capture (E)—A. F. Gamali, B. V. Zemtsev, V. B. Ivanov, B. V. Nesterov and L. P. Kham'yanov. 15(1), 1-4 (Jul. 1972); CPM-7209C0953
- Zhaitykov, B. O.**—Charged Particle Distribution in Inelastic Proton-Neutron Interactions at 19.2 GeV/c (E)—É. G. Boos, B. O. Zhaitykov, E. S. Lukin, A. M. Mosienko and R. A. Tursunov. 16(2), 187-8 (Feb. 1973); CPM-7304E0290
- Zhdanov, A. A.**—Polarization of 1000-MeV Protons Scattered by Be, C, Al, and Pb Nuclei (E)—V. G. Vovchenko, A. A. Zhdanov, V. M. Zheleznyakov, O. Ya. Fedorov and A. V. Shvedchikov. 16(6), 628-30 (Jun. 1973); CPM-7310E1476
- Zhelev, Zh.**—Investigation of the Decay of Tl^{194} (E)—B. Amov, T. Vandlik, J. Vandlik, Ts. Vylov, Zh. Zhelev, N. G. Zaitseva, I. Penev and H. Tyrrhoff. 16(5), 487-90 (May 1973); CPM-7309D1203
- Zheleznyakov, V. M.**—Polarization of 1000-MeV Protons Scattered by Be, C, Al, and Pb Nuclei (E)—V. G. Vovchenko, A. A. Zhdanov, V. M. Zheleznyakov, O. Ya. Fedorov and A. V. Shvedchikov. 16(6), 628-30 (Jun. 1973); CPM-7310E1476
- Zhidkov, N. K.**—Investigation of Elastic pd Scattering in the Diffraction Cone Region in the Energy Range 10-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. 15(6), 650-3 (Dec. 1972); CPM-7302E0176
- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8-70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyung Bien and M. G. Shafranov. 16(1), 50-6 (Jan. 1973); CPM-7304E0154
- Zhikhareva, S. V.**—Nucleon Pairing and Dependence of the Number of Prompt Neutrons on the Fragment Mass (T)—A. E. Savel'ev, S. V. Zhikhareva and M. A. Savel'eva. 16(1), 11-3 (Jan. 1973); CPM-7304E0115
- Zhivopistsev, F. A.**—Nature of the Intermediate Structure of Dipole Analog Resonances (T)—F. A. Zhivopistsev and K. F. Shitikova. 16(1), 21-4 (Jan. 1973); CPM-7304E0125
- Zhizhin, E. D.**—Erratum: Angular and Momentum Distributions of μ^- Mesons in the Reaction $\nu + Z \rightarrow \mu^- + W^+ + Z$ [14, 235, (2)] (T)—E. D. Zhizhin, Yu. P. Nikitin, G. V. Rozhnov and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Erratum: Angular and Momentum Distributions of μ^+ Mesons Resulting from the Decay of the W^+ Boson in the Reaction $\nu + Z \rightarrow \mu^+ + Z + W^+ + Z$ [14, 236, (2)] (T)—A. V. Berkov, E. D. Zhizhin, Yu. P. Nikitin and E. P. Shabalin. 15(1), 118 (Jul. 1972); CPM-7209C1070
- Zhukov, M. V.**—A Model for the Equations of Nuclear Physics (T)—A. I. Baz' and M. V. Zhukov. 16(1), 31-7 (Jan. 1973); CPM-7304E0135
- Model of the Equations of Nuclear Physics. One Decay Channel (T)—A. I. Baz' and M. V. Zhukov. 16(5), 529-36 (May 1973); CPM-7309D1245
- Zhukova, O. A.**—Nuclear Reactions Produced by α Particles on Co^{59} Nuclei (E)—O. A. Zhukova, V. I. Kanashvich, S. V. Laptev and G. P. Chursin. 16(2), 134-7 (Feb. 1973); CPM-7304E0237
- Zima, V. G.**—Photoproduction of Electron-Positron Pairs (T)—V. G. Zima. 16(5), 580-3 (May 1973); CPM-7309D1296
- Zimina, O. V.**—Asymmetry of Nuclear Fission with Allowance for Quantum Effects (T)—B. T. Geilikman and O. V. Zimina. 15(3), 256-9 (Sep. 1972); CPM-7211A1885
- Zlatanov, Z. M.**—The Real Part of the Amplitude for Elastic pd-Scattering at an Energy of 70 GeV (E)—V. I. Zayachki, L. G. Khristov, Z. M. Zlatanov and P. A. Devenski. 15(5), 528-9 (Nov. 1972); CPM-7302E0054

- Zolin, I. S.**—Investigation of Elastic p - d Scattering in the Diffraction Cone Region in the Energy Range 10–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Buyak, N. K. Zhidkov, V. I. Zayachki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyong B'en and M. G. Shafranov. **15(6)**, 650–3 (Dec. 1972); CPM-7302E0176
- Investigation of Elastic Proton-Proton Scattering in the Region of the Interference of the Coulomb and the Nuclear Interactions in the Energy Interval 8–70 GeV (E)—V. D. Bartenev, G. G. Beznogikh, A. Bujak, N. K. Zhidkov, V. J. Zajacki, L. S. Zolin, L. F. Kirillova, B. A. Morozov, V. A. Nikitin, P. V. Nomokonov, Yu. K. Pilipenko, A. Sandach, V. A. Sviridov, Chyung Bien and M. G. Shafranov. **16(1)**, 50–6 (Jan. 1973); CPM-7304E0154
- Zombkovskaya, N. K.**—Measurement of the Branching Ratio $\Gamma(K_L \rightarrow 3\pi^0)/\Gamma(K_L \rightarrow \pi^+ \pi^- \pi^0)$ (E)—V. V. Barmin, V. G. Barylov, G. D. Davidenko, V. S. Demidov, A. G. Dolgolenko, N. K. Zombkovskaya, A. G. Meshkovskii, G. S. Mirosidei, T. A. Chistyakova and V. A. Shebanov. **15(6)**, 638 (Dec. 1972); CPM-7302E0164
- Zon, B. A.**—Coulomb Green's Functions in the x -Representation and Relativistic Polarizability of a Hydrogen-Like Atom (T)—B. A. Zon, N. L. Manakov and L. P. Rapoport. **15(3)**, 282–6 (Sep. 1972); CPM-7211A1911
- Zotov, N. P.**—K-Meson Charge Exchange and Factorization of the Effective Residues of Complex Poles (T)—N. P. Zotov, S. V. Tarasevich and V. A. Tsarev. **15(2)**, 209–10 (Aug. 1972); CPM-7210C1470
- Photoproduction of π^0 Mesons from Nucleons in the Complex Regge Pole Model (T)—N. P. Zotov, Yu. A. Rakov and V. A. Tsarev. **15(3)**, 307–8 (Sep. 1972); CPM-7211A1936
- Allowance for the Cuts on the Basis of the Regge Complex Pole Model (T)—N. P. Zotov and V. A. Tsarev. **16(2)**, 226–8 (Feb. 1973); CPM-7304E0329
- Zvenigorodskii, A. G.**—Levels and γ Transitions in Cu^{64} from the Reaction $\text{Ni}^{64}(p, \gamma)\text{Cu}^{64}$ (E)—B. Ya. Guzhovskii, S. N. Abramovich, A. G. Zvenigorodskii and S. V. Trusillo. **16(2)**, 123–6 (Feb. 1973); CPM-7304E0226
- Zyablin, V. L.**—Cross-Sections for $(n, 2n)$ Reactions on Ga, As, Sm, Gd for 14.1 MeV Neutrons (E)—D. V. Viktorov and V. L. Zyablin. **15(6)**, 608–9 (Dec. 1972); CPM-7302E0134

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